

Portfolio Allocation as Leadership Strategy: Bargaining among and within Parties

by

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PREFACE

This dissertation, entitled *Portfolio Allocation as Leadership Strategy: Bargaining among and within Parties*, sheds new light on the way cabinet portfolios are allocated among political parties as well as party factions. In parliamentary democracies, cabinet ministers hold very important positions, because they make policies and oversee the implementation of policy on behalf of the government, while at the same time retaining the support of a parliamentary majority. When no single party solely controls a majority in the legislature, a group of parties forms a coalition government and decides which party gets which portfolios in the cabinet. Since the number of cabinet ministers is limited, the allocation of these positions also poses one of the most difficult decisions in coalition politics.

In the existing literature on coalition governance, some argue that cabinet portfolios will be allocated *proportional* to a party's seat share in the coalition (Gamson's law), while others argue that the formateur party—the party formally given the first opportunity to build a coalition and typically the party from which the prime minister hails—will get a share that is *more than proportional* to its seat share. As I show in Chapter 2 of my dissertation, however, I have obtained empirical evidence that contradicts both theories. In most coalition governments in Western Europe, prime ministerial parties actually receive *fewer* portfolios than they should under the aforementioned theories. Moreover, these allocation outcomes vary considerably over time and across countries.

Why do prime ministerial parties accept weaker positions than their parliamentary

representation would imply? The observed patterns suggest that cabinet portfolios are not merely prizes for coalition formation in the parliament. In order to explain the considerable variation in portfolio allocation across countries and over time within countries, in Chapter 3, I bring a new perspective to the study of portfolio allocation by drawing particular attention to the process of managing a coalition government. At the heart of this work is a theoretical framework that accounts for portfolio allocation as a product of a prime minister's "political strategy." The framework builds from a core premise: the prime minister of a coalition government is concerned about productive policy-making as well as the long-term survival of the government. These concerns affect the bargains that the prime minister will choose to strike with potential and existing coalition partners. And in conditions that are often satisfied in Western Europe, these concerns will lead the prime minister's party to accept fewer portfolios than prevailing theories would predict.

From this framework, I develop a game-theoretic model in Chapter 4 that articulates the circumstances under which the prime minister of a coalition government is likely to surrender various numbers of portfolios. In contrast to the previous literature on portfolio allocation, which focuses exclusively on the factor of coalition formation, this theoretical model also takes into account the effect of the cost of coalition governance that the prime minister has to bear in the process of managing the coalition. I then evaluate the model's predictions in Chapter 5 by drawing on data from coalition governments in thirteen Western European countries. The empirical work demonstrates that the prime minister's party surrenders more cabinet portfolios not only as its bargaining power in assembling a coalition declines, but also as the policy preferences of coalition partners become more divergent. These findings strongly support my argument that the prime minister uses portfolio allocation as an instrument to defuse tensions among coalition partners as well as to reward them for joining the ruling coalition. Moreover, the results also explain why the share of portfolios given

to the prime minister's party reflects neither proportionality nor formateur advantage in most Western European countries. The prime minister often surrenders portfolios to junior partners because of the need to put together a stable, functional coalition.

Bargaining over cabinet portfolios also takes place *within* parties because many parties have internal divisions or factions that influence these decisions. Therefore, I further extend my theoretical framework in Chapter 6 to explain portfolio allocation within parties by examining a case in Japan where highly institutionalized factions have existed in the ruling party—the Liberal Democratic Party (LDP)—for over more than forty years. The LDP is an excellent case for analyzing portfolio allocation among factions because its long tenure in power allows us to control for party status in the government. The findings show that substantial variation in allocation outcomes has occurred between elections and without a change in the LDP's status as ruling party. I argue that this variation is because party leaders act similarly to prime ministers in coalition governments in allocating portfolios among factions strategically to prevent defections and challenges from internal rivals; therefore, their factions surrender more portfolios as they become more vulnerable to challenges posed by internal rivals. The resulting portfolio allocation reflects the bargaining dynamics within the party and affects the extent to which party members are willing to behave in a disciplined manner in the parliament.

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CHAPTER I

Introduction

1.1 Research Questions

In many parliamentary democracies, no single party solely controls a majority in the legislature. To command a legislative majority, multiple parties commonly form a coalition.¹ When parties decide to govern collectively, they negotiate with each other regarding policies that they will implement and determine which party gets which portfolios in the cabinet to share the power of government. Since cabinet ministers make policies and oversee the implementation of policies on behalf of the government, political parties that wish to control government policies seek these positions. The number of such cabinet portfolios, however, is limited; coalition member parties cannot always get what they want. Accordingly, the allocation of cabinet portfolios poses one of the most important and difficult decisions in democracies thus organized.

What we know about the mechanisms underlying portfolio allocations, however, is very limited. In the existing literature on coalition governance, some argue that cabinet portfolios will be allocated *proportional* to a party's seat share in the coalition, while others argue that the formatuer party—the party formally given the first opportunity to build a coalition and typically the party from which the prime minister

¹Sometimes minority cabinets are formed with a majority support due to certain institutional features such as opposition influence in the parliament and cabinet formation rules (see Strøm 1990; Bergman 1993).

hails—will get a share that is *more than proportional* to its seat share. However, I have obtained empirical evidence of portfolio allocation in many Western European countries that contradicts both theories. In allocating cabinet portfolios, prime ministerial parties often receive *fewer* portfolios than they should under prevailing proportionality and formateur-advantage theories. Moreover, their allocation outcomes vary considerably.

For instance, in Germany, when the Christian democratic parties (CDU/CSU) formed a coalition with the Free Democratic Party (FDP) in 1982, they took 7.3 percentage points fewer portfolios than their seat share. When the Social Democratic Party (SPD) formed a coalition with the FDP in 1974, on the other hand, it suffered a greater loss of portfolios than the CDU/CSU did, and accepted 12.6 percentage points fewer portfolios than its seat share. Similarly, in Denmark, when the Conservative People’s Party formed a center-right coalition with three other parties in 1982, it obtained only 2.9 percentage points fewer portfolios than its seat share. On the other hand, when the Social Democrats led a four-party coalition in 1993, it experienced a greater loss of portfolios than did the Conservative People’s Party, and received 15.5 percentage points fewer portfolios than its seat share. As I will explain in detail later, these deviations from proportionality are neither idiosyncratic examples, nor are they generated by the indivisibility of cabinet portfolios in translating seat shares into portfolios.² They are indeed systematically observed across countries as well as over time within countries.

Why do sometimes prime ministerial parties receive far fewer portfolios than their seat shares while other times they do not? What explains the variation in portfolio allocations? The existing studies, which focus mostly on the overall pattern of

²Political parties have to round up or down the remainder term in dividing cabinet portfolios. If deviations from proportionality emerge due to this rounding problem, the variation should diminish as the cabinet size increases because parties are less likely to face a rounding issue. However, I find no obvious correlation between the degree of deviation from proportionality and the size of cabinet. The deviation from proportionality is actually large even in such countries as Italy and Belgium, where the cabinet size is relatively large among Western European countries.

portfolio allocation, do not explain these losses and variations in allocation outcomes. The considerable variation in allocation outcomes suggests that, unlike in the existing literature, cabinet portfolios may not be simply allocated among coalition member parties dependent upon the resources they contribute to the establishment of a coalition. Furthermore, while the allocation of cabinet portfolios has been discussed in the context of forming a winning coalition in the parliament, the formation of a coalition alone may not fully explain portfolio allocations.³ To provide a more accurate picture of the mechanisms at work in portfolio allocation across countries and over time within countries, this dissertation brings new perspectives to the study of portfolio allocation by drawing particular attention to the process of managing a coalition government.

1.2 Previous Literature on Portfolio Allocation

The numerical distribution of cabinet portfolios has been extensively discussed in the context of forming a coalition government because political parties that wish to firmly control the government need to command a parliamentary majority. Accordingly, the literature on portfolio allocation has examined how cabinet portfolios are distributed among parties in the process of forming a coalition by treating portfolios as a reward for joining a coalition. In the literature on coalition governance, two distinct views exist about the driving motivation of political parties that engage in bargaining over cabinet portfolios: (1) policy-seeking motivations and (2) office-seeking motivations. The policy-seeking approach assumes that political parties are motivated by a desire to produce their preferred policy outcomes (Austen-Smith and Banks 1990; Laver and Schofield 1990; Laver and Shepsle 1996). The main concern of this litera-

³The existing literature on portfolio allocation has extensively examined the process of forming a winning coalition in the parliament because political parties need to command a parliamentary majority. As a result, portfolio allocation has been described as the result of a bargain between parties whose primary goal is to establish a winning coalition in the parliament.

ture has been to find a stable allocation of cabinet portfolios in the policy issue space rather than examining the number of cabinet portfolios. The office-seeking approach, on the other hand, assumes that political parties are primarily driven by a desire to obtain the spoils of office. This literature has focused on the numerical distribution of cabinet portfolios to explain distributed payoffs in the coalition bargaining.

Within the latter literature, two further traditions exist to explain the numerical distribution of cabinet portfolios, one empirical and the other theoretical. The empirical research tradition shows that the share of portfolios given to each party in a coalition is *proportional* to the amount of resources the party contributes to the coalition, most notably the share of parliamentary seats (Gamson 1961; Browne and Franklin 1973; Browne and Frendreis 1980). This proportionality proposition is called “Gamson’s Law.” The other research tradition relies on formal theories that focus on the institutional role of the agenda-setter—formateur party advantage (Baron and Ferejohn 1989). This tradition of studies predicts that the formateur party—the party formally given the first opportunity to build a coalition and typically the party from which the prime minister hails—will gain a share of portfolios that is *more than proportional* to its seat share.

The main concern of previous studies of portfolio allocation has been to explain the apparent contradiction between these two traditions. These studies particularly focus on testing the proportionality of distributed portfolios and the existence of a formateur advantage. Scholars disagree over whether the formateur party takes a larger share of portfolios than other coalition partners do (Morelli 1999; Diermeier and Morton 2005; Fréchette, Kagel and Morelli 2005; Ansolabehere et al. 2005), but empirical studies show that coalition parties overall receive proportional shares of portfolios in relation to their seat shares in the coalition (Warwick and Druckman 2001, 2006; Druckman and Warwick 2005).⁴

⁴Some recent studies attempt to explain the logic behind the proportional allocation of cabinet portfolios (e.g., Morelli 1999; Carroll and Cox 2007) because empirical studies do not account for

1.3 Patterns of Portfolio Allocation

Despite the voluminous literature on portfolio allocation, however, an important systematic deviation from proportionality and much of the variation in the disparity between portfolio shares and seat shares have yet to be accounted for. If we scrutinize the relationship between portfolio shares and seat shares in Western European countries, we find that the pattern of portfolio allocation is significantly different between prime ministerial parties and junior coalition parties. Most of the time, the prime minister's party actually receives *fewer* portfolios than it should under prevailing proportionality and formateur-advantage theories.⁵ In those countries, the prime minister's party appears to have no advantage in portfolio allocations. Furthermore, there is also considerable variation in their portfolio allocation outcomes across countries and over time within countries.⁶

Figure 1.1 shows changes in portfolio shares allocated to prime ministerial parties in thirteen Western European countries between 1945 and 2000.⁷ The horizontal axis indicates the name of coalition cabinets in chronological order. The vertical axis indicates the disparity between the prime minister party's portfolio share and its parliamentary seat share in the coalition.⁸ It describes the degree of deviation from the proportional share. A positive value on the vertical axis implies that a

why the proportional tendency is observed in overall allocation outcomes.

⁵In Western European countries, junior coalition parties tend to receive *more* portfolios than their shares of parliamentary seats that they contribute to the coalition.

⁶Schofield and Laver (1985) and Laver and Schofield (1990) attempt to explain the country-by-country variations in allocation outcomes and argue that coalition systems can be classified into the two types: those in which the proportionality norm is used to allocate portfolios and those in which the bargaining norm is used. They suggest that the bargaining norm is dominant where the bargaining environment is less stable, because coalitions tend to be relatively short-lived and parties seek more direct access to policy payoffs under such circumstances. Their explanation, however, cannot account for the significant changes in portfolio allocation over time within countries.

⁷The dataset used here was produced by James Druckman and Paul Warwick. I have excluded care-taker governments because their temporal allocation outcomes are not politically significant for parties. France also has been excluded from the dataset because, different from other countries, multiple ministers in a cabinet are often non-partisan independents under the semi-presidential system.

⁸The prime minister's position is included as one of the cabinet portfolios in calculating the discrepancies between portfolio shares and seat shares.

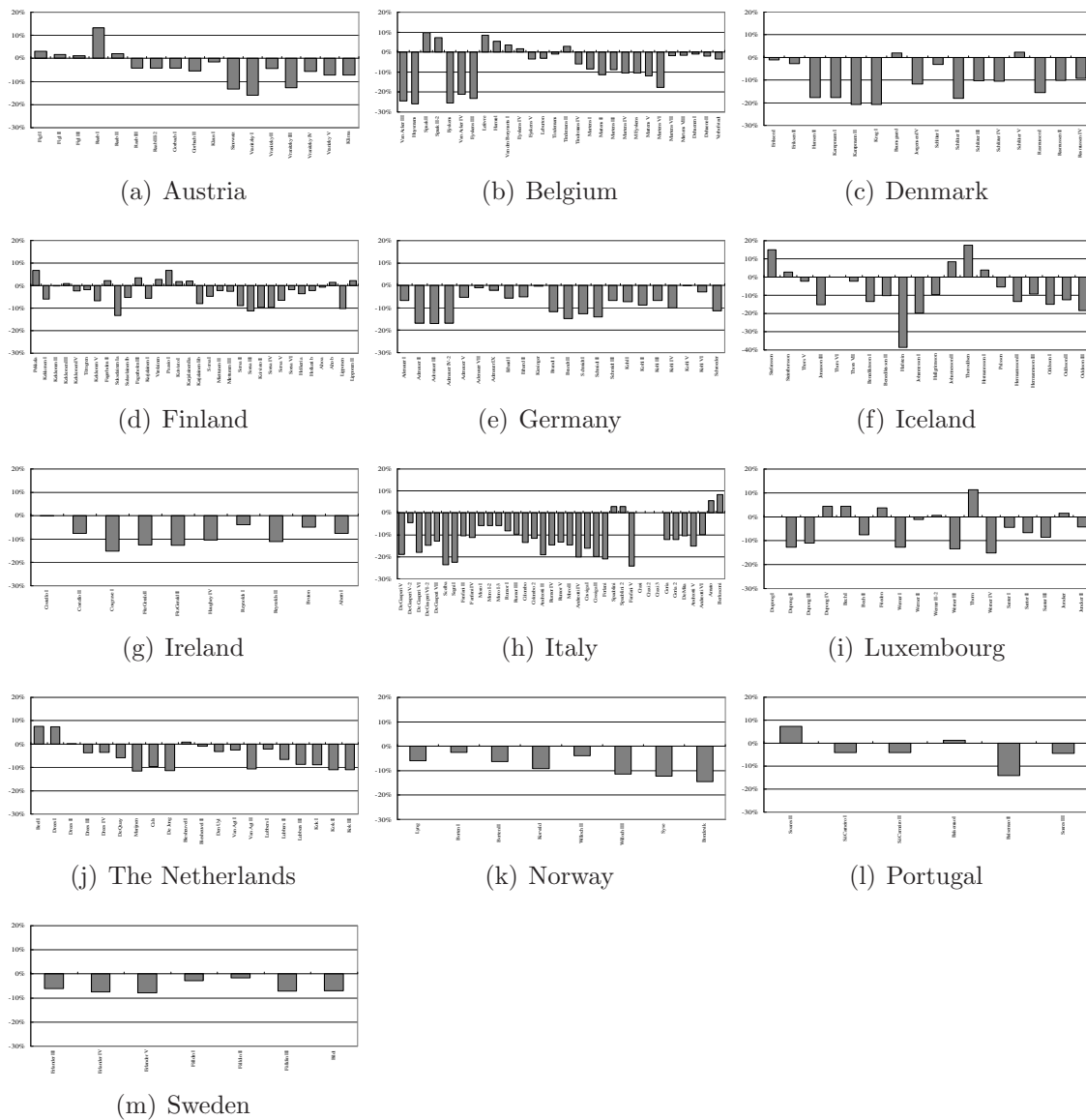
prime minister's party receives more than a proportional share of portfolios. On the other hand, a negative value implies that a prime minister's party receives less than a proportional share.

The allocation results shown in Figure 1.1 provide two important empirical facts that have attracted inadequate attention in the existing studies of portfolio allocation. First, most of the time, the number of cabinet portfolios given to the prime minister's party is *less than proportionate* to its seat share within the coalition.⁹ Among the 241 observations in the dataset, 79.3% of them (191 cases) have a negative deviation from proportionality in allocation outcomes. The degree of negative deviation among them is, on average, 9.5 percentage points, which is the equivalent of one to three portfolios in the cabinet.¹⁰ Second, and more importantly, considerable variation exists in the disparities between portfolio shares and seat shares. As clearly shown in Figure 1.1, the degree of deviation from proportionality is not always constant across countries or over time within countries. For instance, the average negative deviation is about 14 percentage points in Italy, whereas it is about 6 percentage points in Sweden. Similarly, the range of negative deviation is about 25 percentage points in Belgium, whereas it is about 11 percentage points in the Netherlands. The prime minister's party also receives more portfolios than its seat share in one in five cases. The variation in the disparities between portfolio shares and seat shares is not the result of a mathematical problem when dividing cabinet portfolios proportionately. Among the 241 cases, the remainder term accounts for the disparity in only 22.4% (54 cases). In most cases, the disparity is much greater than can be explained by the "lumpiness" of the translation of seat shares into cabinet portfolios. The range of disparities discussed in Figure 1.1 is between -38.5% and $+17.6\%$. This range is indeed much greater than the range of disparities due to the lumpiness in translating

⁹This is also true when the salience of allocated portfolios is taken into account or when voting weights in assembling a majority winning coalition are employed instead of parliamentary seats.

¹⁰Some observations (50 cases) have a positive deviation from proportionality. The degree of positive deviation among them is, on average, 4.3 percentage points.

Figure 1.1: Difference between Prime Ministerial Party's Portfolio Share and Its Seat Share



seats into portfolios, which is only between -5.2% and $+4.2\%$.

These allocation patterns show that contrary to proportionality (Gamson's Law) and formateur-advantage theories—the two dominant explanations of portfolio allocation in the existing literature—the prime minister's party often receives a smaller share of portfolios than its seat share. Moreover, the degree of deviation from proportionality varies greatly across cabinets as well as across countries. The prime minister's party sometimes receives even more portfolios than its seat share. The existing studies examine the overall trend of portfolio shares allocated to coalition member parties and do not explain various important changes in portfolio allocations.¹¹ By focusing on the prime minister's role in coalition governments, this study explains the variation in portfolio allocation outcomes to understand the bargaining dynamics in coalition governments.

1.4 Portfolio Allocation as Leadership Strategy

In order to explain the considerable variation in allocation outcomes, this dissertation proposes a theoretical framework that accounts for portfolio allocation as a product of a prime minister's "political strategy." The framework builds from a core premise: the prime minister of a coalition government is concerned about productive policy-making as well as the long-term survival of the government. These concerns affect the bargains that the prime minister will choose to strike with potential and existing coalition partners because the prime minister has to play a central role to achieve consensus among coalition members in the management process.¹² In other

¹¹For instance, Warwick and Druckman (2001, 645) suggest that the overall pattern of the prime minister party's under-compensation could be explained by the inherent value of the prime minister's post because the salience scores may not accurately reflect the importance of cabinet ministers. However, their study does not explain the variation in allocation outcomes over time as well as across countries.

¹²In coalition governments, prime ministers control the executive branch as a head of government and, at the same time, represent the interests of their party's members in the government. Accordingly, prime ministers always have to deal with both their party's members and coalition partners to gain sufficient support from them.

words, the prime minister needs to strike a bargain over cabinet portfolios to maintain voting unity in the parliament and advance the government's policy agenda. In conditions that are often satisfied in Western Europe, I find that these concerns will lead the prime minister's party to accept fewer portfolios than prevailing theories would predict. From this theoretical framework, I develop a simple formal model that articulates the circumstances under which the prime minister's party is likely to surrender various numbers of cabinet seats. I then evaluate the model's predictions through a series of empirical analyses using data drawn from coalition governments in thirteen Western European countries.

My theory indicates that the prime minister, who plays a central role in managing a coalition government, uses cabinet portfolios not only to assemble a winning coalition in the parliament, but also to facilitate coordination among coalition parties with different policy goals. Accordingly, the prime minister's party surrenders more cabinet portfolios not only as its bargaining power in assembling a coalition declines, but also as the policy preferences of coalition partners become more divergent. Furthermore, these two factors interactively influence the allocation of cabinet portfolios in important ways. When the prime minister's party has weak bargaining power to form a majority winning coalition, it surrenders portfolios to junior partners in order to keep them from leaving the coalition. On the other hand, when the prime minister's party has strong bargaining power, it does not surrender portfolios to junior partners if they have similar policy goals. However, if junior partners have different policy goals, the prime minister's party surrenders portfolios in order to gain cooperation from junior partners in the process of managing the coalition government. The empirical work demonstrates that my theoretical framework better explains variations in portfolio allocation across countries and over time within countries than do proportionality or formateur-advantage theories.

The results of this dissertation help us understand the bargaining dynamics be-

tween political parties because the resulting portfolio allocation reflects their bargaining outcome over coalition payoffs. In parliamentary democracies, political parties bargain with one another to gain office and control over policy. When they decide to form a coalition, they distribute portfolios to allocate power among them. These decisions affect which societal interests will be represented in the actions of government.¹³ Accordingly, the allocation of cabinet portfolios among parties is a process of the utmost importance—for the parties themselves and for society as a whole. Since the number of portfolios is limited, the allocation of cabinet portfolios also poses one of the most difficult decisions in democracies thus organized. Examining how parties handle such hard choices reveals an important aspect of coalition politics that lies at the center of the political process in many parliamentary democracies.

Furthermore, in contrast to the existing studies that have exclusively highlighted the coalition formation process to understand the allocation of cabinet portfolios, this study shows that the coalition management process—the future of the formed coalition—also shapes current distribution deals. Political parties that join a coalition do not necessarily maintain legislative voting unity after they form the coalition. By paying particular attention to the prime minister’s role in increasing voting unity and managing the coalition government, this dissertation advances a debate about the bargaining dynamics between political parties over cabinet portfolios.¹⁴

¹³There is a controversy about policy-making in coalition governments, which turns on whether policy outcomes are the weighted average of parties at the bargaining tables or the products of their independent jurisdiction in the cabinet (see Laver and Shepsle 1996, 1999*a,c*; Warwick 1999*a,b*). Either way, however, cabinet ministers play an important role not only in making policies but also in operating the government. Hence, portfolio allocation—who is sitting in the cabinet—matters to overall policy outcomes.

¹⁴The existing literature on portfolio allocation has extensively examined the process of forming a winning coalition in the parliament because political parties that wish to firmly control the government need to command a parliamentary majority. Hence, portfolio allocation has been described as the result of a bargain between parties whose primary goal is to establish a winning coalition in the parliament. The management process after the formation of a coalition government has been paid little attention in the literature on portfolio allocation.

1.5 Outline of the Dissertation

This dissertation is composed of seven chapters including this introduction chapter. In order to examine the empirical regularity of portfolio allocation, Chapter II compares the allocation outcomes between prime ministerial parties and junior coalition parties in thirteen Western European countries by using multiple measures of coalition payoffs and bargaining resources. The results demonstrate that while the proportionality proposition (Gamson's Law) appears to hold across parties, a very different pattern exists among them. That is, prime ministerial parties tend to receive *fewer* portfolios than their shares of parliamentary seats in the coalition; on the other hand, junior coalition parties tend to receive *more* portfolios. Furthermore, the degree of negative deviation from proportionality is not constant among prime ministerial parties; there is considerable unexplained variation in the disparity between portfolio shares and seat shares.

To understand significant variation in allocation outcomes, Chapter III introduces a theoretical framework that accounts for the mechanisms underlying portfolio allocation. The framework builds from a core premise: the prime minister of a coalition government is concerned about productive policy-making as well as the long-term survival of the government. These concerns affect the bargains that the prime minister will choose to strike with potential and existing coalition partners. Therefore, in contrast to the existing literature that has focused on the process of forming a coalition to explain the allocation outcomes, my theory also takes into account the prime minister's role in the process of managing the coalition. From this framework, Chapter IV develops a game-theoretic model that articulates the circumstances under which the prime minister of a coalition government is likely to surrender portfolios for productive policy-making in the management process. Chapter V evaluates the theoretically predicted pattern of portfolio allocation by drawing on data from coalition governments in thirteen Western European countries between 1945 and 2000. The

empirical work demonstrates that the prime minister surrenders cabinet portfolios not only because of its weak bargaining power in assembling a coalition, but also because coalition partners have different policy preferences. The findings strongly support my argument that the prime minister uses portfolio allocation as an instrument to defuse tension among coalition partners as well as to reward them for joining a coalition. The results explain why the share of portfolios given to the prime minister's party reflects neither proportionality nor formateur advantage in most Western European countries.

Chapter VI further extends my theoretical framework to explain portfolio allocation among party factions because bargaining over cabinet portfolios also takes place *within* parties. Party leaders decide how to allocate portfolios among party members, but the leaders do not necessarily allocate portfolios at their sole discretion because many parties have internal divisions or factions that influence their decisions. To explore how the dynamics of portfolio allocation work within parties, this chapter examines an important case in Japan where highly institutionalized factions have existed in the ruling party—the Liberal Democratic Party (LDP)—for over a long period of time. The findings of this chapter suggest that substantial variance exists in allocation outcomes over time because, similarly to prime ministers in coalition governments, party leaders allocate portfolios strategically to prevent defections and challenges from internal rivals. The resulting portfolio allocation reflects the bargaining outcomes within the party, which will affect the extent to which party members are willing to behave in a disciplined manner in the parliament.

Finally, Chapter VII summarizes the important findings and implications of this dissertation. This dissertation reveals mechanisms underlying portfolio allocation across parties as well as within parties. However, there are several issues that lie beyond the scope of this dissertation project and remain unanswered. This chapter concludes with a discussion of the issues and questions for future research.

CHAPTER II

The Empirical Regularity of Portfolio Allocation: Reconsidering “Gamson’s Law”

2.1 Introduction

This chapter examines the results of portfolio allocation in Western European countries by focusing on the difference between *prime ministerial parties* and *junior coalition parties* in order to illustrate some puzzling features of portfolio allocation. To date, existing studies on portfolio allocation are inconclusive about whether or not there is any difference in allocation outcomes between them. The empirical studies on portfolio allocation suggest that cabinet portfolios are allocated among coalition member parties in proportion to the resources that they contribute to establish a government, most notably their parliamentary seats. This proportionality proposition is called “Gamson’s Law.” The bargaining literature, on the other hand, focuses on the role of a formatuer to explain the pattern of portfolio allocation. In the process of forming a coalition, a person designated by the head of state or party leaders often acts as a formateur, who is responsible for building a coalition. The formateur integrates political parties with different interests into a coalition. Once parties decide to govern collectively, the formateur usually assumes the position of the prime minister

and allocates cabinet portfolios among the parties.¹ Since the formateur can propose the allocation of cabinet portfolios in the bargaining process, this literature predicts the formateur’s party will get a share that is more than proportional to its seat share.

Is there any difference in allocation outcomes between prime ministerial parties and junior coalition parties? If so, how does the allocation pattern differ between them? To answer these questions, this chapter employs multiple measures of resources that parties contribute to a coalition as well as payoffs that parties receive from the coalition and examines the empirical regularity of portfolio allocations. The findings of this chapter suggest that the allocation outcomes actually contradict both theories. If we scrutinize the relationship between portfolio shares and seat shares in Western European countries, we find that the pattern of portfolio allocation is significantly different between prime ministerial parties and junior coalition parties. Most of the time, however, prime ministerial parties actually receive *fewer* portfolios than they should under prevailing theories, while junior coalition parties, in fact, receive *more* portfolios.

The dataset for the analysis is composed of all coalition governments formed in thirteen Western European countries between 1945 and 2000.² The countries in my dataset are Austria, Belgium, Denmark, Finland, Germany, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, and Sweden.³ The dataset, however, excludes care-taker governments, which do not have any substantial decision-making power, because the allocation of portfolios is less likely to be an issue among coalition members.

¹In many Western European countries, the prime minister substantially chooses his or her cabinet members after the negotiations with coalition members, and then a monarch or president appoints cabinet ministers upon the recommendation from the prime minister. See Strøm, Müller and Burgman (2003) for details.

²The data on cabinet portfolios (unweighted and weighted), seat shares, and voting weights were provided by Paul Warwick and James Druckman (Warwick and Druckman 2001, 2006). The data on cabinet information was provided by Parliamentary Democracy Data Archive (Torbjörn C. Bergman et al.). I supplemented the data by using Keesing’s World News Archive.

³France has been excluded because it employs a “semi-presidential” system and the role of the prime minister is restricted (Elgie and Machin 1991).

This chapter is organized as follows: the next section examines the relationship between portfolio shares and seat shares among coalition member parties. The results show that there is a significant difference between prime ministerial parties and junior coalition parties. However, this difference may be drawn because cabinet portfolios and parliamentary seats do not truly reflect what we want to measure as coalition payoffs and bargaining resources, respectively. In order to avoid this problem, in the third section, I introduce two alternative measures of coalition payoffs: (1) *salience weighted portfolios* and (2) *cabinet membership*. Then, in the fourth section, I further introduce an alternative measure of bargaining resources, which describes how pivotal the party is in the bargaining table: *voting weights*.

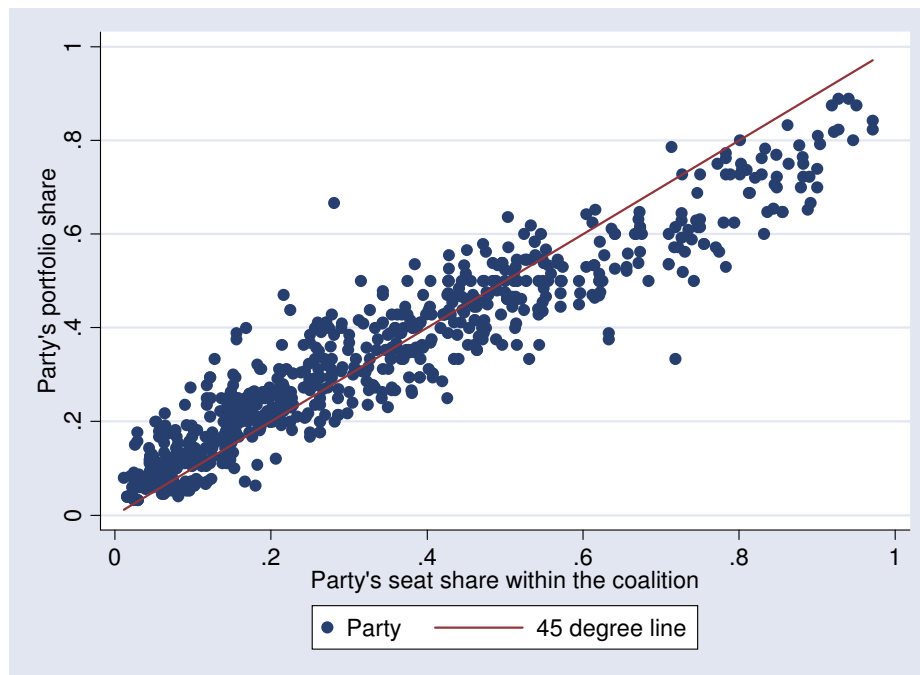
2.2 Relationship between Portfolio Shares and Seat Shares

The empirical research on portfolio allocation has extensively examined the relationship between portfolio shares and seat shares among member parties in coalition governments. This tradition of studies suggests that cabinet portfolios are allocated in proportion to a member party's seat share in the coalition. Figure 2.1 provides a scatter plot that describes the relationship between portfolio shares and seat shares among coalition member parties in thirteen Western European countries. The horizontal axis in the figure indicates the share of parliamentary seats that parties contribute to a coalition.⁴ The vertical axis indicates the share of cabinet portfolios given to the parties. The diagonal line is a 45-degree line indicating where perfect proportionality is attained.

Figure 2.1 demonstrates that, among coalition parties, larger parties tend to get more portfolios, while smaller parties tend to get fewer portfolios. In addition, allocated results are scattered around the 45-degree line on the figure and the allocated

⁴The denominator in calculating the seat share is the total number of seats that a coalition government holds in the parliament; it is not the total number of seats in the parliament. I exclusively employ the number of seats in the lower house where the legislature is bicameral.

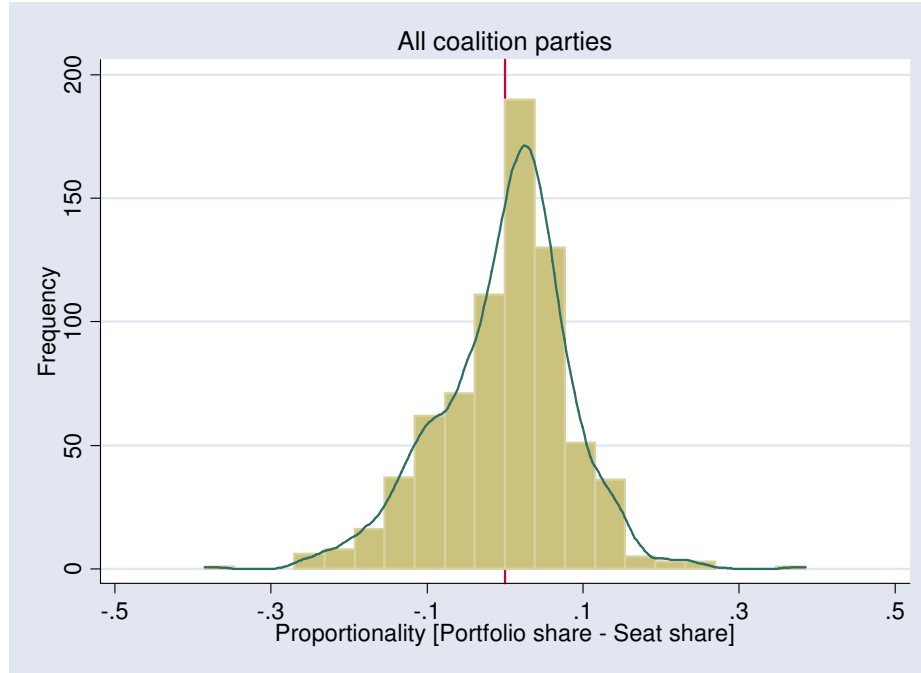
Figure 2.1: Relationship between Portfolio-share and Seat-share



portfolios are highly correlated with seat shares. Indeed, the correlation coefficient between cabinet portfolios and parliamentary seats is 0.95, which is very close to one. These results suggest that a strong proportional relationship exists between portfolio shares and seat shares.

The overall proportionality in the allocation results is also confirmed by a histogram shown in Figure 2.2. The histogram illustrates the degree of deviation from proportionality. To be more specific, the horizontal axis shows the value of the difference between portfolio share and seat share. If a party receives the exactly proportional share of cabinet portfolios relative to its seat share, it falls in the center of this axis. If a party receives *more* portfolios than its proportional share, it falls in the right side. On the other hand, if a party receives *fewer* portfolios than its proportional share, it falls in the left side. The vertical axis indicates the number of parties. The kernel density curve, drawn over the histogram, smoothed out the distribution.

Figure 2.2: Proportionality of Allocation Outcomes



The histogram demonstrates that coalition member parties overall receive a proportional share of cabinet portfolios in relation to the share of parliamentary seats. The mean value of the difference between portfolio share and seat share is exactly zero. Indeed, the t-test result cannot reject the null hypothesis that this mean value is zero. Since there is a proportional relationship between portfolio shares and seat shares, the observed pattern of portfolio allocation in West European countries appears to be consistent with Gamson's Law in the literature.

The observed pattern of portfolio allocation, however, is significantly changed once coalition member parties are separated into the two groups: prime ministerial parties and junior coalition parties. Figure 2.3 provides two scatter plots that describe the relationship between portfolio shares and seat shares. The left scatter-plot includes only prime ministerial parties; the right one includes only junior coalition parties. These scatter plots show that prime ministerial parties tend to receive *fewer* portfolios than their seat shares because they are plotted mostly *below* the 45-degree line in the

Figure 2.3: Relationship between Portfolio-share and Seat-share (separated)

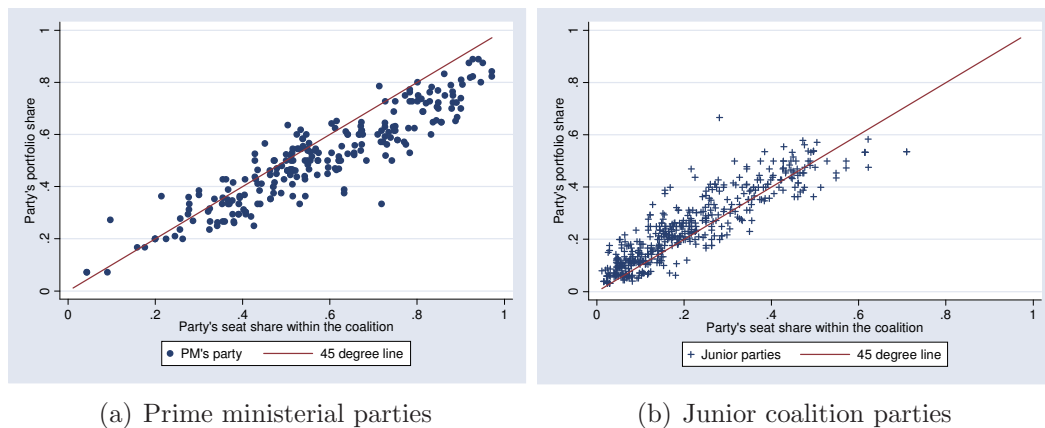


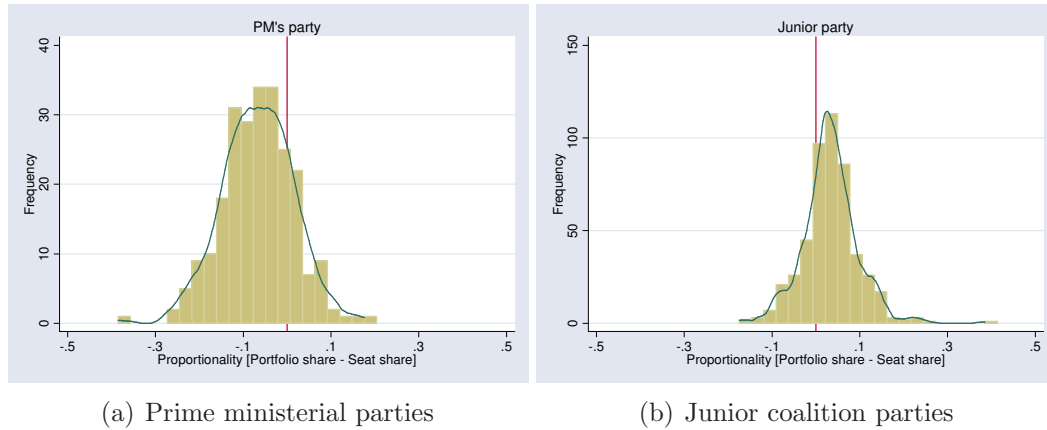
figure. Junior coalition parties, on the other hand, tend to receive *more* portfolios than their seat shares because they are plotted mostly *above* the 45-degree line.

The difference between prime ministerial parties and junior coalition parties is also observed from histograms. Figure 2.4 displays two histograms that depict the distribution of discrepancies between portfolio shares and seat shares: one histogram is for prime ministerial parties and the other is for junior coalition parties. These histograms clearly show, on average, prime ministerial parties receive fewer portfolios than their seat shares, while junior coalition parties generally receive more portfolios than their seat shares.⁵ More importantly, these deviations from proportionality are also statistically significant. The t-test results reject the null hypothesis that the mean value is zero in both cases at the 1% level. These results suggest that cabinet portfolios are allocated differently between prime ministerial parties and junior coalition parties. In other words, the proportionality appeared to hold across parties in the overall pattern because these two groups are mirror images of one another in their allocated portfolio shares.

Figure 2.5 summarizes the histograms. The box-plots in this figure correspond

⁵The average deviation from proportionality is 6.7 percentage points (in the negative direction) for prime ministerial parties and 3.3 percentage points (in the positive direction) for junior coalition parties.

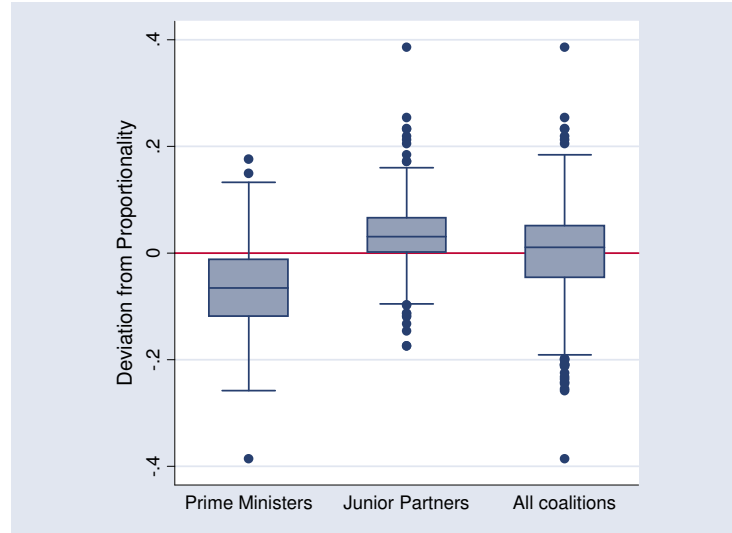
Figure 2.4: Proportionality of Allocation Outcomes (separated)



to the following three groups, respectively: (1) prime ministerial parties, (2) junior coalition parties, and (3) all coalition member parties. The vertical axis indicates the difference between portfolio shares weighted by salience scores and seat shares (i.e., the degree of deviation from proportionality). The top of the box represents 75th percentile and the bottom of the box represents 25th percentile. The line in the middle of the box represents the median point. Again, the figure shows that the observed pattern of portfolio allocation is significantly different between prime ministerial parties and junior coalition parties.

The empirical evidence in this section is very striking because, inconsistent with prevailing theories in the existing literature, prime ministerial parties receive lower shares of cabinet portfolios than their seat shares. Browne and Frendreis (1980) argue that larger parties tend to receive fewer portfolios than their seat shares because parties in a strong position in the coalition are able to surrender portfolios without losing control of the cabinet. They call this the “relative weakness effect.” Since a prime minister often hails from the largest party within the coalition (Warwick 1996; Martin and Stevenson 2001), some might think that what we observed here (i.e., prime ministerial parties tend to receive fewer portfolios than their proportional shares) is because of this relative weakness effect. However, this effect does not fully explain the

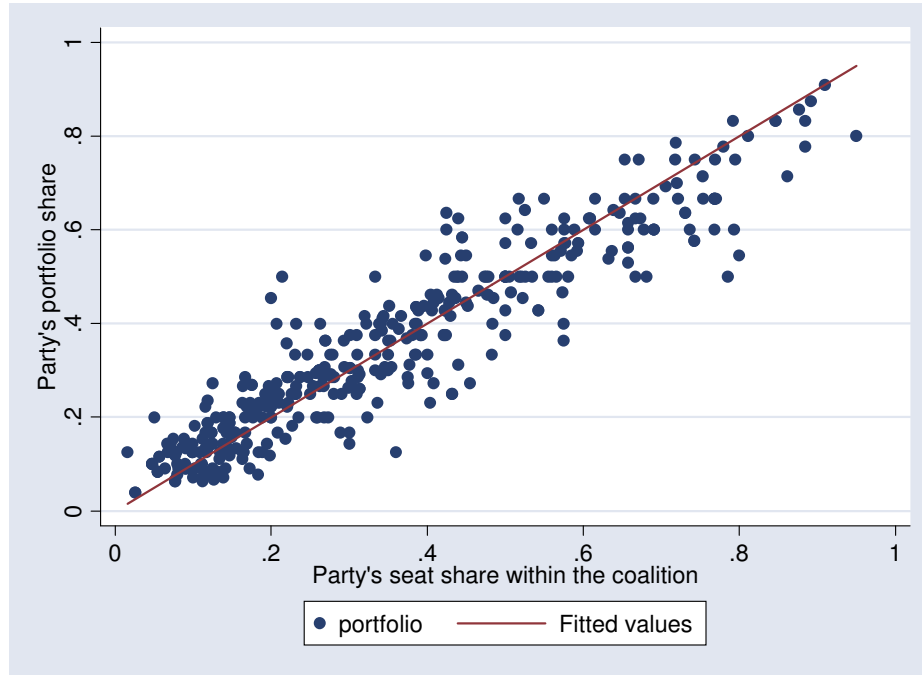
Figure 2.5: Relationship between Portfolio-share and Seat-share (box-plots)



negative deviations from proportionality, because prime ministerial parties maintain the same tendency even when they are relatively small parties in the coalitions. In addition, the relative weakness effect does not work among junior coalition parties. If we examine the relationship between portfolio shares and seat shares among junior coalition parties, we find, contradictory to the relative weakness effect, that larger junior parties do not surrender extra portfolios to smaller junior parties.

The scatter plot in Figure 2.6 describes the relationship between portfolio shares and seat shares among junior coalition parties, when multiple junior parties exist in a coalition. In other words, this figure illustrates how cabinet portfolios are divided among junior coalition parties. The result shows that cabinet portfolios are allocated almost proportionately among junior coalition parties and that the relative weakness effect is absent among them. If the relative weakness effect causes the difference in the pattern of portfolio allocation between prime ministerial parties and junior coalition parties, it should also affect portfolio allocation among junior coalition parties. However, since the logic of the relative weakness effect does not apply to junior coalition parties, it does not explain the difference in the pattern of portfolio allocation

Figure 2.6: Relationship between Portfolio-share and Seat-share (Junior Parties)



between prime ministerial parties and junior coalition parties. We need to consider other factors in order to explain the different patterns of portfolio allocation between them.

The existing research on portfolio allocation has made two premises either explicitly or implicitly. First, cabinet portfolios should work as *payoffs* for joining a coalition because portfolio allocation is the result of bargaining in the formation of a coalition government. Second, cabinet portfolios should be distributed depending on the *resources* that member parties contribute to establish the governing coalition because bargaining outcomes are determined by the amount of resources that each party controls. So far, I have employed cabinet portfolios and parliamentary seats to examine the pattern of portfolio allocation. However, they may not be appropriate measures of a party's payoffs and resources in coalition bargaining. To deal with this concern, I further examine the difference between prime ministerial parties and junior coalition parties with multiple alternative measures in the following two sections

2.3 Coalition Payoffs: Weighted Portfolios or Cabinet Membership

In this section, I examine the pattern of portfolio allocation by introducing two alternative measures of coalition payoffs: (1) the share of cabinet portfolios weighted by the relative importance score and (2) the share of cabinet membership.

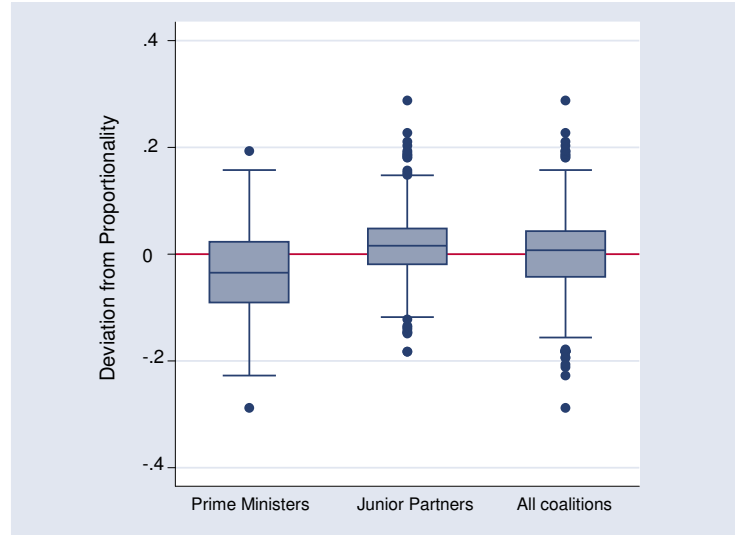
Share of Weighted Portfolios

Cabinet ministers are in very important positions in the government because they make and oversee the implementation of policy on behalf of the government (Laver and Schofield 1990; Gallagher, Laver and Mair 2006). Therefore, political actors wishing to control government policies seek cabinet membership. However, parties may not count every cabinet portfolio equally because some portfolios are usually more important and valuable for government decision-making. For instance, such ministries as Finance and Foreign Affairs retain relatively more significant influence in the government, while others ministries such as Tourism and Environment do not. Hence, coalition member parties may want to control a small number of portfolios, but ones which are important in the cabinet. As a result, ignoring the relative importance of cabinet portfolios may be problematic in assessing coalition payoffs that parties truly care about.

In order to avoid this problem, I employ the portfolio share weighted by salience scores that describe the relative importance of individual cabinet portfolios.⁶ Figure 2.7 presents the results based on the weighted portfolio share. The three box-plots correspond to the following three groups, respectively: (1) prime ministerial parties,

⁶Laver and Hunt (1992) produce an ordinal ranking of cabinet portfolio based on an expert survey. However, this weighting scheme might underestimate or overestimate some portfolios because it provides only *rankings* of portfolios and it does not provide *ratings* of portfolios. To estimate the importance of each portfolio more accurately, Druckman and Warwick (2005) conduct an expert survey asking country experts to evaluate the salience of cabinet posts. The salience scores used here are based on an expert survey conducted by Druckman and Warwick.

Figure 2.7: Relationship between Weighted portfolio-share and Seat-share



(2) junior coalition parties, and (3) all coalition member parties. This figure is exactly the same as Figure 2.6 shown in the previous section, except for the measurement of cabinet portfolios. The vertical axis indicates the difference between salience weighted portfolio shares and seat shares (i.e., the degree of deviation from proportionality).

The figure indicates that coalition member parties appear to receive proportional shares of weighted portfolios relative to their seat shares. However, the pattern of portfolio allocation is still different between prime ministerial parties and junior coalition parties. The former parties tend to receive less than proportional shares, while the latter parties tend to receive more than proportional shares. The t-test results reject the null hypothesis that there is no deviation from proportionality at the 1% significance level. This pattern of allocation is still the same as the previous case based on portfolio shares without attaching any weights.⁷

Share of Cabinet Membership

⁷This result is consistent with Warwick and Druckman (2006). By using the portfolio share weighted by this salience score, they examine the proportionality of portfolio allocation. They find that the pattern of portfolio allocation is closely matched between the two measures and that formateur parties do not enjoy any advantage in portfolio allocation.

So far, I have treated cabinet portfolios as the payoffs that parties are seeking in coalition bargaining. However, parties may not seriously care about the number of *cabinet ministries* that they are going to control in the government; instead, they may care about the number of *cabinet members* that they are going to send to the cabinet. As a measure of coalition payoffs, the number of cabinet members may be more appropriate for the following reasons.

First, the number of cabinet members that each party sends to the cabinet is not necessarily the same as the number of cabinet portfolios that each party holds. In some countries, there are cabinet members who are appointed to multiple portfolios simultaneously. For instance, a deputy prime minister, who is usually appointed from a junior coalition party, tends to hold other portfolios at the same time. These concurrent positions in a cabinet could inflate the share of coalition payoffs given to a junior coalition party.

Second, a cabinet is a decision-making organ in the government. The members of a cabinet play an important role in making and implementing policies. The cabinet members also discuss issues and resolve conflicts in the government. Since cabinet members represent their party in the government, parties might be concerned about the number of cabinet members they send to the cabinet, especially if the cabinet decision rule is a majority vote. In other words, parties may prefer sending two members to the cabinet rather than taking two concurrent portfolios with one member.

In order to examine the relationship between coalition payoffs and parliamentary seats, I construct an original data on cabinet membership in thirteen Western European countries between 1945 and 2000 by using Keesing's World News Archive. Before I examine the allocation of cabinet membership among coalition parties, I compare the total cabinet size between the *cabinet portfolio* measure and the *cabinet membership* measure to overview the difference between the two measures.

Table 2.1 and Table 2.2 show the summary statistics on the cabinet size by the

Table 2.1: Total Number of Cabinet Portfolios

Country	Mean	Standard deviation	Minimum	Maximum
Austria	13.41	2.40	11	18
Belgium	23.96	5.80	16	34
Denmark	19.56	3.50	13	25
Finland	15.81	2.09	12	19
Germany	19.18	2.61	15	25
Iceland	12.35	1.60	9	16
Ireland	16.00	1.33	13	18
Italy	25.76	4.61	16	34
Luxembourg	23.00	7.64	12	37
the Netherlands	15.55	2.04	10	18
Norway	17.13	2.30	15	20
Portugal	15.67	1.21	14	17
Sweden	16.14	4.30	11	20
Total	18.96	5.92	9	37

cabinet portfolio measure and by the cabinet membership measure, respectively.⁸ The tables indicate that the cabinet size varies greatly across countries. In the cabinet portfolio measure, the minimum is 9 in Iceland and the maximum is 37 in Luxembourg. Likewise, in the cabinet membership measure, the minimum is 6 in Iceland and Luxembourg and the maximum is 30 in Italy. There are also some disparities between the two measures. The cabinet size based on the cabinet portfolio measure (Table 2.1) is almost always greater than the cabinet size based on the cabinet membership measure (Table 2.2), which implies that some cabinet ministers concurrently hold multiple portfolios. The disparities between the two measures in such countries as Belgium, Iceland, and Luxembourg are relatively wider than other countries.

The cabinet size varies not only across countries, but also within countries as well. Figure 2.8 demonstrates how these numbers change over time in each country. The horizontal axis in each figure is the name of each cabinet in chronological order. The

⁸I exclude cabinet members who do not affiliate with any one of parties. In thirteen Western European countries in the data set, non-partisan independents are rarely appointed to a cabinet minister. The maximum number of non-partisans appointed in a single cabinet is four in Finland and Italy, but these cases are quite exceptional even in these countries.

Table 2.2: Total Number of Cabinet Members

Country	Mean	Standard deviation	Minimum	Maximum
Austria	13.29	2.17	10	18
Belgium	19.36	4.01	15	27
Denmark	18.50	3.14	13	23
Finland	15.00	1.74	12	18
Germany	18.27	2.47	14	24
Iceland	8.05	1.93	6	11
Ireland	14.60	1.07	12	16
Italy	24.97	4.31	15	30
Luxembourg	8.72	1.96	6	12
the Netherlands	13.90	1.74	8	16
Norway	16.75	1.91	15	19
Portugal	14.67	1.03	14	16
Sweden	16.73	2.70	13	20
Total	16.39	5.71	6	30

vertical axis shows the total number of coalition payoffs allocated among parties in the governing coalition. The gray bar indicates the total number of cabinet portfolios in the cabinet, and the black bar indicates the total number of cabinet members. The correlation between the total number of cabinet portfolios and the total number of cabinet members is relatively high, but these numbers are not perfectly matched in all countries in the dataset.⁹ The result suggests that we might observe different patterns of allocation by this measure.

When I examine the allocation outcomes by using the cabinet membership measure instead of the cabinet portfolios measure, however, I find a very similar pattern as before. Figure 2.9 presents three box-plots that employ the share of cabinet membership instead of the share of cabinet portfolios. Here, the vertical axis indicates the difference between cabinet membership shares and seat shares.

The box-plots in Figure 2.9 demonstrate that coalition member parties overall receive proportional share of cabinet membership, but that a significant difference exists between prime ministerial parties and junior coalition parties. Prime ministerial

⁹The correlation coefficient is 0.728, but its value is 0.918 if Luxembourg is excluded.

Figure 2.8: Total Number of Coalition Payoffs

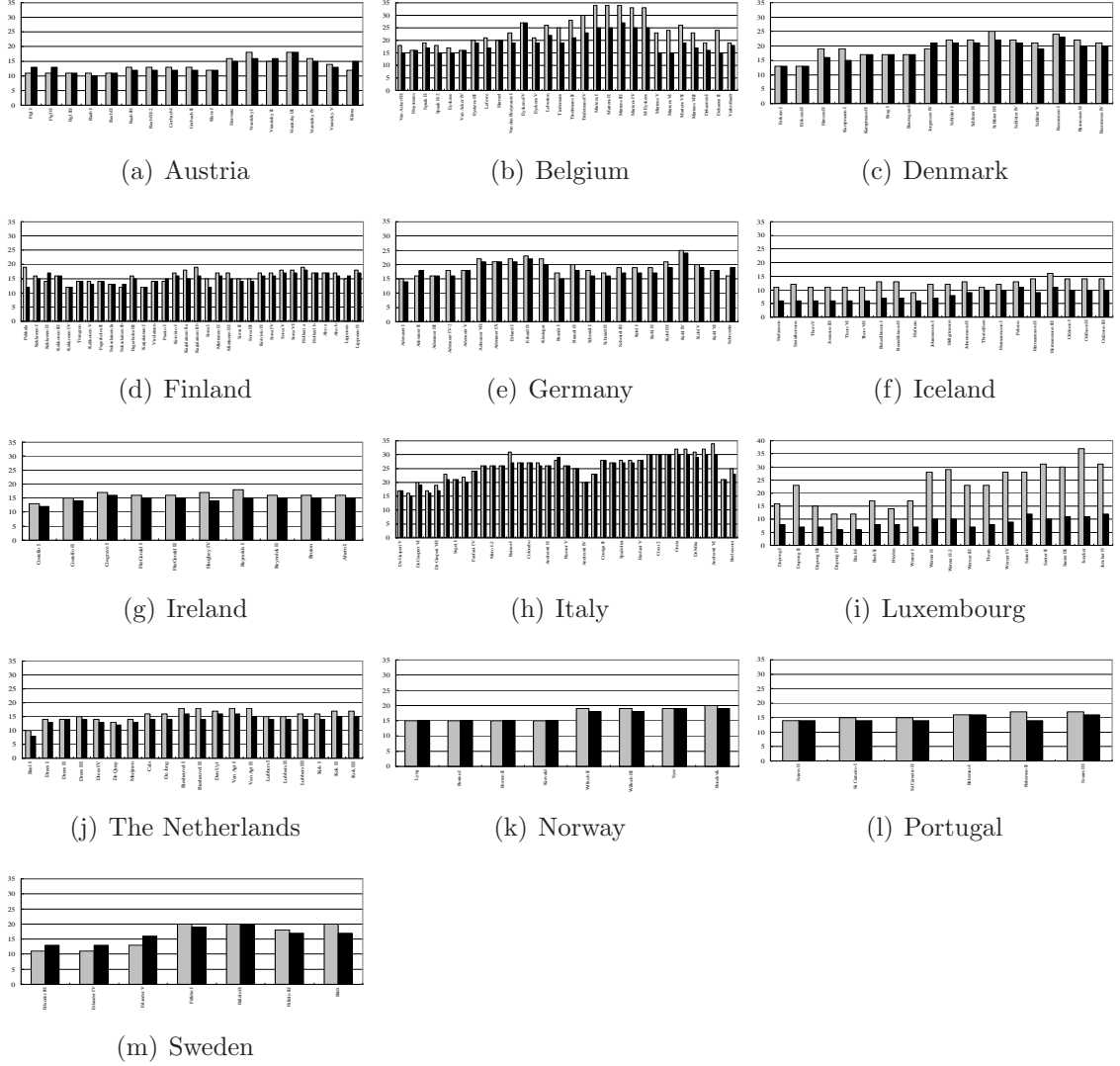
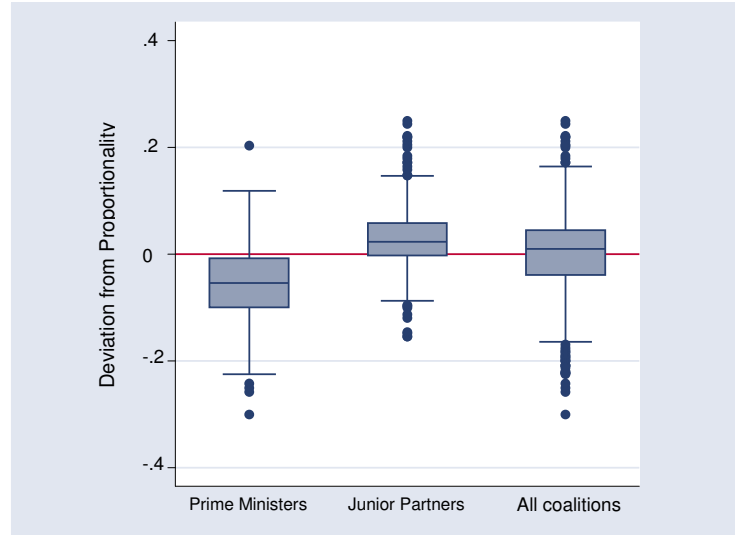


Figure 2.9: Relationship between Membership-share and Seat-share



parties tend to send fewer cabinet members to their cabinets relative to their seat shares, while junior coalition parties tend to send more cabinet members. The t-test result rejects the null hypothesis that the overall pattern of portfolio allocation is the same between prime ministerial parties and junior coalition parties at the 1% significance level and thus, the cabinet membership measure yields the same allocation pattern as before.

In summary, the total number of coalition payoffs is slightly different between the cabinet portfolio measure and the cabinet membership measure. However, the allocation pattern seems almost identical between the two measures. Hence, coalition payoffs are not equally distributed between prime ministerial parties and junior coalition parties; prime ministerial parties tend to receive fewer coalition payoffs than they should under prevailing proportionality and formateur-advantage theories.

2.4 Bargaining Resources: Parliamentary Seats or Voting Weights

The existing literature has assumed that cabinet portfolios are allocated among parties depending on the resources that they contribute to establish a coalition. However, the share of parliamentary seats does not necessarily capture how much pivotal the party is at the bargaining table during the formation of a coalition. Since the size of a party is not always equal to power (see Lupia and Strøm 2008), the extent to which parties are critical in building a majority winning coalition may be a more appropriate measure of their bargaining resources than their seat shares. This section continues the inquiry of allocation pattern by introducing an alternative measure of bargaining resources that political parties use in the negotiation process.

The strength of a party's bargaining position in building a coalition is one of the important resources for coalition member parties. Ansolabehere et al. (2005) argue that formal models make predictions on portfolio allocation in terms of bargaining power, but empirical studies have examined portfolio allocation by using parliamentary seat shares. They claim that this discrepancy in the measurement is the reason why empirical studies have found no formateur advantage. In order to examine whether a formateur enjoys any advantage in portfolio allocation, they propose to employ minimum-integer voting weights instead of parliamentary seats. They have two major findings: the allocation of cabinet portfolios is proportional relative to the party's voting weight share, but there is a strong and statistically significant formateur advantage. The results shown in this section, however, do not necessarily support their findings.

Figure 2.10 and Figure 2.11 present six box-plot figures that describe the overall pattern in the discrepancy between portfolio shares and voting weight shares.¹⁰ The three figures in Figure 2.10 include all types of coalitions, while the three fig-

¹⁰The data on voting weights were provided by Warwick and Druckman.

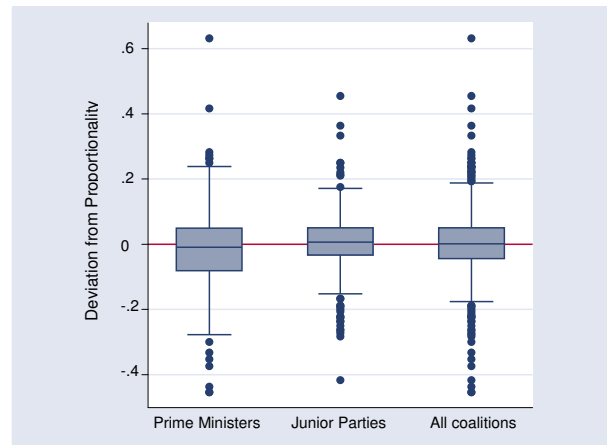
ures in Figure 2.11 include only minimal-winning coalitions. I show the results of minimal-winning coalitions separately because the game-theoretic models have exclusively assumed these coalitions (Ansolabehere et al. 2005). The three figures in each group corresponds to the three different measurements of coalition payoffs: cabinet portfolios (the top figure), salience weighted portfolios (the middle figure), and cabinet membership (the bottom figure).

The results show that prime ministerial parties do not necessarily receive more portfolios than their voting weight shares. On the contrary, the overall allocation pattern appears to be identical between prime ministerial parties and junior coalition parties. The t-test results cannot reject the null hypothesis that there is any difference in the overall pattern of allocation between prime ministerial parties and junior coalition parties, except for the case when salience weighted portfolios are used as coalition payoffs. The results suggest that the formatuer advantage exists only when relative importance of portfolios is taken into account. However, the existence of formteur advantage is mainly because of the existence of outliers. Indeed, the median value in the box-plot (the middle figure) is very close to zero, suggesting that prime ministerial parties do not necessarily receive more portfolios than their proportional shares.

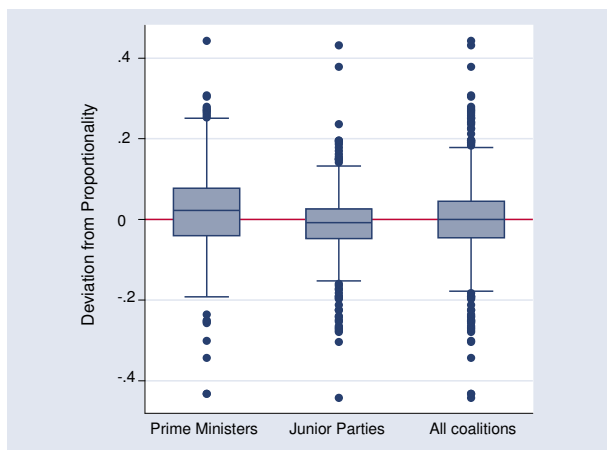
Warwick and Druckman (2006) argue that larger coalition payoffs given to prime ministerial parties are explained mostly by their larger shares of parliamentary seats. They demonstrate that formateur advantage drops significantly once they control the seat share and that the effect of voting weights is greatly reduced especially where voting weights are less correlated with parliamentary seats. Table 2.3 and Table 2.4 replicate the results of their regression analyses with weighted portfolios and voting weights. These tables provide the results for all coalitions and for only minimal-winning coalitions, respectively.

The regression results demonstrate that the effect of voting weights is greatly re-

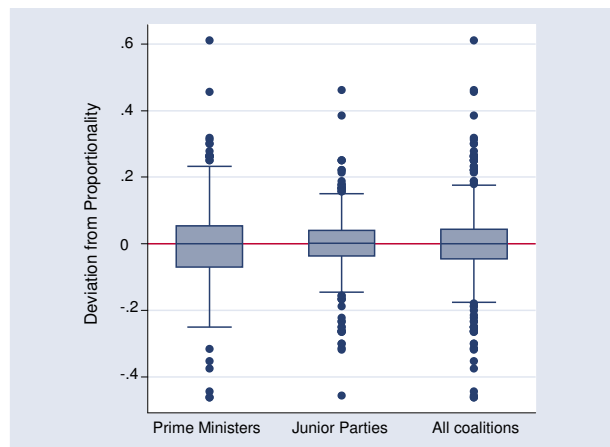
Figure 2.10: Relationship between Portfolio-share and Voting weight-share (all coalitions)



(a) Cabinet portfolios

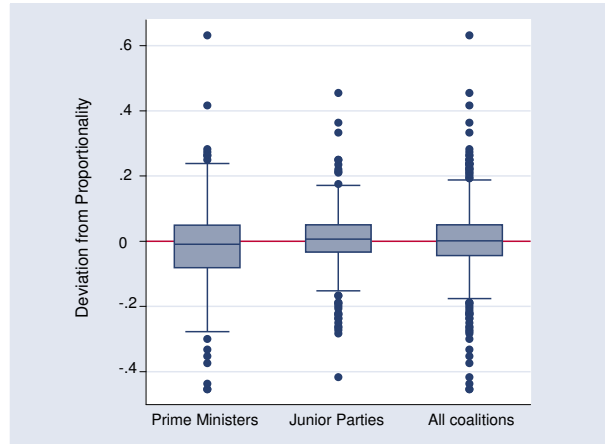


(b) Weighted portfolios

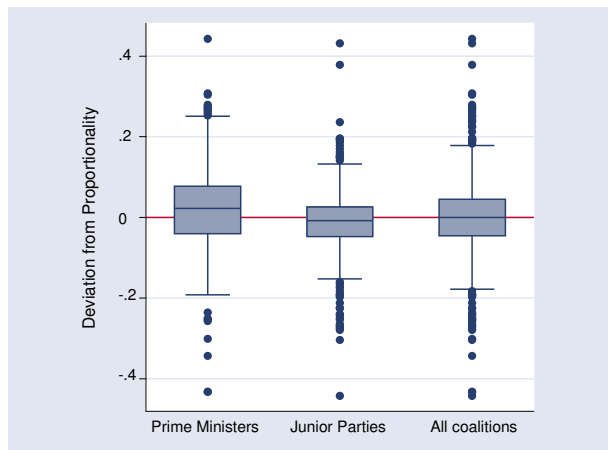


(c) Cabinet membership

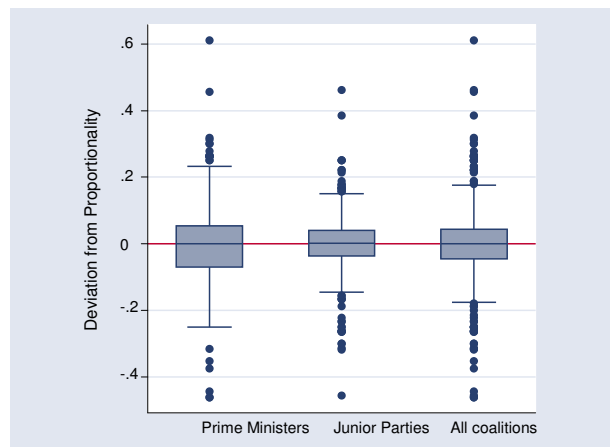
Figure 2.11: Relationship between Portfolio-share and Voting weight-share (Minimal-winning coalitions)



(a) Cabinet portfolios



(b) Weighted portfolios



(c) Cabinet membership

Table 2.3: Regression Results

Independent variables	Dependent variable: Party's share of weighted portfolios							
	All	PM's party	Junior party	All	PM's party	Junior party	All	All
Voting weight share	0.885 (0.033)***	0.696 (0.061)***	0.757 (0.088)***	0.731 (0.070)***	0.757 (0.088)***	0.258 (0.061)***	0.187 (0.056)***	0.233 (0.062)***
PM's party dummy	-	-	-	0.109 (0.039)**	0.133 (0.029)***	-	-	0.071 (0.015)***
Interaction (Voting weight share × PM dummy)	-	-	-	-	-0.061 (0.066)	-	-	-0.119 (0.035)***
Seat share	-	-	-	-	-	0.626 (0.060)***	0.687 (0.057)***	0.659 (0.058)***
Constant	0.038 (0.013)**	0.180 (0.043)***	0.047 (0.018)**	0.053 (0.016)***	0.047 (0.018)**	0.034 (0.010)***	0.042 (0.009)***	0.033 (0.010)***
Observations	728	240	488	728	728	488	728	728
R-squared	0.80	0.61	0.70	0.83	0.83	0.84	0.92	0.93

Robust standard errors (clustered by country) in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 2.4: Regression Results (Minimal-winning coalitions)

Independent variables	Dependent variable: Party's share of weighted portfolios							
	All	PM's party	Junior party	All	PM's party	Junior party	All	All
Voting weight share	0.920 (0.041)***	0.714 (0.080)***	0.678 (0.110)***	0.690 (0.084)***	0.678 (0.110)***	0.248 (0.073)***	0.203 (0.072)**	0.229 (0.075)***
PM's party dummy	-	-	-	0.143 (0.061)**	0.126 (0.043)**	-	0.031 (0.013)**	0.072 (0.022)***
Interaction (Voting weight share × PM dummy)	-	-	-	-	0.036 (0.119)	-	-	-0.093 (0.052)*
Seat share	-	-	-	-	-	0.608 (0.077)***	0.628 (0.079)***	0.635 (0.080)***
Constant	0.033 (0.017)*	0.198 (0.055)***	0.071 (0.023)***	0.068 (0.019)***	0.071 (0.023)***	0.047 (0.012)***	0.056 (0.015)***	0.046 (0.012)***
Observations	304	123	181	304	304	181	304	304
R-squared	0.67	0.42	0.58	0.76	0.76	0.78	0.89	0.90

Robust standard errors (clustered by country) in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

duced once the share of parliamentary seats is controlled. That is, neither voting weights nor parliamentary seats functions as the sole bargaining resources for parties in coalition bargaining, but parliamentary seats appear to be more dominant in explaining the allocation of coalition payoffs.

2.5 Summary of Findings

While the existing literature has focused on the relationship between resources and payoffs during bargaining over coalition formation, the literature has implicitly assumed that coalition payoffs are distributed among coalition member parties depending on the amount of resources that they contribute to the coalition. To date, however, it is inconclusive whether there is any difference between prime ministerial parties and junior coalition parties in portfolio allocation outcomes. This chapter examined the empirical regularity of portfolio allocation by using three different measures of coalition payoffs given to coalition member parties: (1) cabinet portfolios, (2) salience weighted portfolios, and (3) cabinet membership. As bargaining resources that parties employ to establish a coalition, I also employed two measures of resources: (1) parliamentary seats and (2) voting weights. Hence, there are six combinations to test in total.

No clear evidence is found to conclude prime ministerial parties enjoy any advantage in portfolio allocation, but the findings suggest that prime ministerial parties experience a clear disadvantage relative to their seat shares. As various figures in this chapter show, a significant difference exists in the allocation pattern between prime ministerial parties and junior coalition parties. Prime ministerial parties tend to receive *fewer* coalition payoffs than their proportional shares, while junior coalition parties tend to receive *more* coalition payoffs. This difference disappears when we use voting weights, instead of parliamentary seats, as bargaining resources. However, the results of regression analyses suggest that the effect of voting weights is greatly

reduced when the share of parliamentary seats is controlled. Thus, the pattern of portfolio allocation differs significantly between prime ministerial parties and junior coalition parties in a way that the conventional wisdom cannot explain.

In addition, the results in this chapter also show that there is considerable variation in portfolio allocation outcomes. Prime ministerial parties often receive fewer portfolios than their proportional shares, but the degree of deviation from proportionality is not constant across cabinets. This variation suggests that coalition payoffs may not be allocated among coalition member parties as a simple function of their resources to establish a coalition. Since the characteristics of coalitions vary significantly, they may also affect the allocation outcomes. In the next chapter, I introduce a theoretical framework that explains why and to what extent the prime minister's party takes cabinet portfolios deviating from its proportional share.

CHAPTER III

The Politics of Portfolio Allocations: Coalition Management and the Distribution of Coalition Payoffs

3.1 Introduction

In the previous chapter, I examined the empirical regularity of portfolio allocation in coalition governments in Western Europe to explore whether prime ministerial parties enjoy any advantage in their allocations. My findings suggest that, contrary to the existing literature, the prime minister's party does not appear to enjoy any advantage in portfolio allocation even though the prime minister takes a leading role in the negotiations between parties. Moreover, not only does the prime minister's party hold no advantage in the allocation of cabinet portfolios, it also seldom receives a proportionate share of cabinet portfolios relative to its seat share within the coalition. There is actually considerable variation in the disparity between portfolio shares and seat shares; sometimes prime ministerial parties receive far fewer portfolios than their seat shares while at other times they do not. This variation suggests that, unlike the existing literature, cabinet portfolios may not be simply allocated among coalition member parties depending on their resources they contribute to establish a coalition—typically their parliamentary seats. In order to understand the mechanisms at work

in portfolio allocation, this chapter introduces a theoretical framework that accounts for the variation in the portfolio share given to a prime minister's party in a coalition government.

The essence of my argument is that portfolio allocation is the result of a strategic choice made by a prime minister, who is concerned about productive policy-making as well as the long-term survival of the government. In parliamentary democracies, political parties get together to form a coalition government, but they do not necessarily agree on everything with each other; rather, they maintain and emphasize different policy goals in order to appeal to voters. It is a prime minister who plays a central role to diffuse tensions between the parties so as to manage the coalition government smoothly. The prime minister of a coalition government uses cabinet portfolios not only to assemble a winning coalition in the parliament, but also to facilitate coordination among coalition members with divergent policy preferences. Accordingly, the prime minister's party often receives fewer portfolios than prevailing theories would predict. Moreover, since the characteristics of coalition member parties are different, the portfolio share given to the prime minister's party varies across cabinets considerably.

This chapter is organized as follows. The next section describes the problems that political parties will face after the formation of a coalition government. The bargaining between parties does not end at the time of forming a coalition because the members of a coalition still have to negotiate and work cooperatively in the parliament to achieve their preferred policy outcomes, which often force them to compromise. The third section describes the prime minister's role in the process of managing the coalition to facilitate cooperation among coalition member parties. Then, the fourth section explains why and how the allocation of cabinet portfolios can affect incentives that parties make compromises and reach agreement in the process of managing and maintaining the coalition. Finally, I conclude this chapter with a summary of my

theory that explains the portfolio share given to a prime minister's party.

3.2 Politics after the Formation of a Coalition Government

As a key mechanism that underlies portfolio allocation, I emphasize the importance of the management process after the formation of a coalition government. In most parliamentary democracies, the executive is accountable to the legislature. When no single party solely controls a majority in the parliament, multiple parties form a coalition in order to command a legislative majority and to control the government. Political parties that wish to form a coalition government negotiate with each other regarding policies that they are going to implement and decide how to allocate power among them. The literature on portfolio allocation has focused on the process of forming a coalition to explain the allocation of cabinet portfolios because bargaining over cabinet portfolios takes place in this process. However, parties are not merely seeking to maximize their control over cabinet portfolios. In addition to office payoffs, political parties are also seeking to attain their preferred policy outcomes as well as to maximize their electoral support (Strøm and Müller 1999).¹ These objectives also affect bargaining over cabinet portfolios, and therefore, I argue that the process of managing the coalition is a key mechanism to understanding portfolio allocation.

Managing the potential conflict in the policy-making process is one of the most important—but often overlooked—features of coalition politics. The existing literature on portfolio allocation has assumed that there is always a legislative majority once parties form a coalition until it collapses. As Huber (1996) suggests, however, coalition member parties often disagree with each other about policies and face serious political deadlock in the legislature after the formation of a coalition. For instance, in

¹The literature on political parties distinguishes three objectives to describe party behavior: (1) office-seeking goals, (2) policy-seeking goals, and (3) vote-seeking goals.

Belgium, Prime Minister Yves Leterme struggled to resolve conflicts between coalition parties that were linguistically and regionally divided. Failing to pass political reform in June 2008, he offered his resignation to King Albert II after less than four months in office, even though his coalition partners had no other viable coalition. This is not a rare example of internal conflicts among coalition parties.

Coalition governments often face such internal conflicts because political parties have more or less different policy preferences. For example, some parties want to reduce the unemployment rate, while other parties want to reduce inflation. When they make an agreement to form a coalition, they know what their preferences are and where they are in the policy space. However, they do not know the nature of the exogenous shock that they are going to experience in the future. They may enjoy strong economic growth during their tenure in office or may face serious economic crisis that forces them to choose between low inflation and low unemployment. In addition, not every party experiences exogenous shocks in the same way. As a result, parties cannot decide everything when they form a coalition. They have to negotiate with each other about common policies that they pursue even after they form a coalition government.

In this process, they need to compromise and overcome their differences to take advantage of the authority of government. The members of a coalition government are able to enjoy the privileged authority of decision-making as long as they command a parliamentary majority. For instance, they are able to pass their bills in the parliament at the expense of parties outside of the coalition. However, coalition member parties cannot enjoy the full benefit of such an authority unless they reach agreement between them because they need to maintain voting unity in the parliament. Without reaching agreement between them, they cannot change government policies unless they receive help from parties outside of the government.

However, it is not always easy for coalition member parties to overcome their differ-

ences in the policy-making process, because they do not want to sacrifice their policy goals to compromise with other parties in a coalition. The electorate expects individual parties to pull government policies toward the position that they had announced during the electoral campaign (Kedar 2005). Since parties will face the electorate in the future, they fear that voters will discredit them for making too many compromises in the coalition. In order to avoid being punished by voters, coalition parties work to advance government bills and policies in ways that they can use to appeal to their supporters. Such coalition parties are particularly likely to face internal conflicts when they have divergent policy goals. As shown in Tsebelis (2002), the bargaining between parties with diverse preferences shrinks the range of the policy space within which they can reach an agreement. As a result, coalition parties with divergent policy goals cannot easily overcome differences and find a mutually beneficial agreement in making government policies.

Since political parties recognize the difficulty in overcoming their differences in the management process, they may attempt to form a coalition that is less likely to face internal conflicts, such as a minimal winning coalition that has the smallest number of parties necessary to command a parliamentary majority (Riker 1962; Leiserson 1968) or a minimal connected winning coalition that is composed of parties with similar policy preferences (Axelrod 1970). However, the attributes of coalitions that are actually formed are indeed quite diverse. Since there are various constraints in the selection of coalition partners (see Tavits 2008), parties do not always form such an efficient coalition. Even if they did, their ideological diversity still varies across coalitions because, for instance, party systems are different or parties change their policy platforms over time in order to win in elections.

3.3 The Prime Minister's Role in Managing the Government

When coalition parties fail to reach agreement in the policy-making process, the government cannot accomplish much because, as a result of coordination failure, coalition parties may take steps that produce inefficient outcomes such as deadlock or the termination of the coalition. Previous research indeed shows that ideologically diverse coalitions tend to be short-lived (Warwick 1992) and experience more delays in introducing bills (Martin 2004) as well as delays in debates in the parliament (Martin 2004; Martin and Vanberg 2005). While coalition parties recognize the problem of coordination failure, the government performance does not always merit the greatest concern for them because they have strong incentives to satisfy their own supporters.

In a coalition government, it is the prime minister who is the most concerned with the quality of governance. In many coalition governments, the power is not concentrated on the prime minister because he/she does not directly control rank-and-file members in other parties; individual parties maintain certain autonomy. While the prime minister of a coalition government has only limited authority, s/he plays a leading role in facilitating coordination among coalition member parties so that they can make full use of the authority of government. As with party leaders who care about the collective interests of the party (Cox and McCubbins 1993), the prime minister of a coalition government cares about the coalition's collective interests, because overcoming collective action dilemmas among coalition parties affects how long the prime minister is able to stay in power as well as how much s/he is able to accomplish as a head of government.

In order to overcome collective action dilemmas and to achieve voting unity in the legislature, the prime minister actively engages in building consensus among coalition parties with different interests (see Rose 1991). Indeed, cabinet ministers in Western European countries report that they usually consult with the prime minister when they experience a conflict with other ministers or when they wish to raise a controver-

sial issue in the cabinet (Müller, Philipp and Gerlich 1993). The result of an expert survey also indicates that the position of the prime minister receives the highest rating among cabinet ministers in those countries (Druckman and Warwick 2005). These results suggest that the prime minister plays a significant role to minimize conflicts in a coalition government.

3.4 Cabinet Portfolios and Effective Governance

There are several ways that the prime minister can facilitate coordination between coalition parties in order to achieve voting unity in the parliament. For example, Huber (1996) argues that the confidence vote procedure allows the prime minister to suppress rebellion and to solve potential conflicts within the government. Since parties can avoid competing against each other in elections, forming a pre-electoral coalition also helps the prime minister facilitate coordination among coalition parties (see Golder 2006*a*). For a prime minister, portfolio allocation is also one of the important instruments to improve cooperation among coalition parties.²

The existing literature on portfolio allocation has extensively examined the process of forming a winning coalition in the parliament (e.g., Gamson 1961; Baron and Ferejohn 1989; Morelli 1999; Ansolabehere et al. 2005) because political parties that wish to firmly control the government need to command a parliamentary majority. Hence, portfolio allocation has been described as the result of a bargain between parties whose primary goal is to establish a winning coalition in the parliament. However, the use of cabinet portfolios is not limited to the purpose of forming a majority winning coalition. The allocation of portfolios can also affect the incentives

²Carroll and Cox (2007) argue that, when parties form a pre-electoral coalition, they allocate cabinet portfolios in proportion to their seat shares in order to prompt them to maximize their effort in electoral campaigns. However, as Golder (2006*b*) points out, pre-electoral coalitions are likely to be formed between parties with similar policy preferences, where the cost of coalition governance is relatively low. Schofield and Laver (1985) also show that Gamson's Law works better than the bargaining set in countries with a small party system as well as a stable government. These results suggest that the electoral incentive may not be the reason why proportional outcomes emerge.

that coalition member parties work cooperatively, because positions in the cabinet bring various beneficial opportunities to their recipients.

For instance, cabinet portfolios bring *policy-making opportunities* to the recipient parties. By working as a head of a government department or agency, individual cabinet ministers are able to develop policy proposals with help of the government bureaucracy. They can also influence policy outcomes because government decisions are often determined in the cabinet. The members of cabinet meet regularly and make decisions. Cabinet portfolios offer not only *policy-making opportunities* but also *rent-collection opportunities*. The government departments and agencies make contracts with private firms to implement their policies, administer a number of subsidy programs, and hire many employees in non-cabinet positions. The recipient parties can extract these state resources for private gain. The leaders of coalition parties are able to calm their party members and supporters who are reluctant to make concessions to other parties in the government by using these benefits. In addition to these beneficial opportunities, cabinet portfolios also offer *career-advancement opportunities* to the recipients. In many countries, cabinet ministers are chosen from among the members of parliament (De Winter 1991). The individual members have their own career goals, and cabinet membership is usually an important position for those who seek further promotion in their political careers. The leaders of coalition parties are able to fend off challenges from internal rivals and grasp control within the party by effectively assigning the allocated portfolios among party members, who want to promote themselves.

Recognizing this, the prime minister gives additional portfolios to junior coalition parties if he/she thinks their concessions will be necessary to overcome collective action dilemmas and to make policies. The prime minister has to surrender portfolios in advance for the future of the formed coalition because junior coalition parties cannot necessarily induce the prime minister to reward them later for their cooperation and

the prime minister may renege on his/her promises. At the bargaining table, the prime minister has weakened bargaining leverage because of the need to put together the coalition. Once parties decide to form a coalition, the prime minister has to be concerned about governance in the management process. In order to prevent internal conflicts and conduct the business of government smoothly, the prime minister needs to establish the environment that motivates coalition member parties to work cooperatively. These concerns about governance affect the bargaining outcomes. At the time of negotiations, everyone knows that the prospective prime minister is going to be bounded by the requirement of governance later on. Therefore, the prime minister has to strike a bargain over cabinet portfolios not only to assemble a winning coalition but also to secure the cooperation of coalition members needed to maintain voting unity in the parliament and to advance the government's policy agenda. In other words, by providing junior coalition partners with extra portfolios in advance, the prime minister makes his/her commitment more credible to gain their cooperation.

The amount of effort that the prime minister has to pay to secure the cooperation of coalition members is not always constant. It instead varies depending on the divergence of policy preferences among coalition parties because the prime minister has to exert extra effort to find common interests among them when they do not share similar policy goals. Multiple parties collectively form a coalition, but they have more or less divergent policy preferences. The policy differences among coalition parties increase the likelihood that they will face internal conflicts in the management process. If parties do not have similar policy preferences, the prime minister of a coalition government is not able to conduct the business of government smoothly without facing conflicts between coalition parties. That is, the cost of maintaining the legislative voting unity will increase as coalition parties have more diverse policy preferences. Accordingly, the prime minister's party reduces its bargaining leverage as coalition members have more divergent policy preferences.

My coalition management explanation predicts that the following two factors affect the strength of the prime minister's bargaining leverage in portfolio allocation: (1) the power of the prime minister's party to assemble a winning coalition in the parliament and (2) the divergence of policy preferences among coalition parties. Political parties that wish to firmly control the government need to command a parliamentary majority. When the prime minister's party has limited capability to assemble a winning coalition in the parliament, potential and existing coalition parties are able to take a tough stand in the coalition formation process because they can walk away from the bargaining table without losing any benefits (Lupia and Strøm 2008). In other words, those coalition parties are likely to have a credible threat against the prime minister as they can build an alternative coalition without the prime minister's party. Therefore, in order to deal with their credible threat, the prime minister needs to make concessions to coalition parties when his/her party has only a weak bargaining power to form a coalition (due to the limited availability of outside options). However, the power to assemble a winning coalition does not conclusively address the amount of concessions made in portfolio allocation. My theory further suggests that, in addition to the formation of a winning coalition, concerns about effective governance in the process of managing the coalition also affect portfolio allocations. The prime minister's party gives up some portfolios not only when it has weak bargaining power in assembling a coalition, but also when coalition partners have different policy preferences.

I have so far explained that the two factors—the value of outside options and the cost of coalition governance—affect the prime minister party's portfolio share. These two factors help explain the empirical regularity observed in Western Europe that contradicts prevailing proportionality and formateur-advantage theories. However, the two factors do not necessarily affect the prime minister party's portfolio share independently of each other; the effect of one factor is mediated by the presence of

the other factor. Although prime ministerial parties with many outside options are likely to receive many portfolios, some of them have to make concessions in portfolio allocation due to divergent policy preferences among coalition parties. Therefore, the effect of outside option on the portfolio share given to the prime minister's party should be moderate when coalition member parties have divergent policy preferences. Similarly, while prime ministerial parties are likely to enjoy strong bargaining leverage in ideologically compact coalitions, some of them have to make concessions to coalition partners due to the limited availability of outside options. Hence, the effect of policy divergence on the prime ministerial party's portfolio share should be moderate when it has only limited capability to assemble a winning coalition in the parliament.

3.5 Summary

In allocating cabinet portfolios, a prime minister of a coalition government faces a tradeoff between his/her party members and coalition partners because he/she represents his/her own party as well as the entire government. As a result, a prime minister has two needs—to gain sufficient support from his/her party members and to elicit cooperation from coalition partners. Moreover, these two needs come into conflict. How the prime minister resolves this conflict affects the bargains that he/she will choose to strike with potential and existing coalition members.

For a prime minister of a coalition government, it is always very important to please his/her party's members, who are his/her primary supporters within the coalition, in order to secure sufficient support from them and to fend off challenges from internal rivals. Political parties are not necessarily a unitary actor, whose members are tightly controlled by their leaders. The competition for political office is very fierce and the incumbent leaders always have rivals who seek their positions (see Bueno de Mesquita et al. 2003, 16). Indeed, many prime ministers are deposed from the premiership due to challenges from their own party's members rather than defections

from coalition partners.³ Accordingly, the prime minister *always* wants to bring as many portfolios as possible to his/her own party.

However, the prime minister cannot give many portfolios to his/her own party's members because he/she also has to attract coalition partners at the same time. In this chapter, I emphasized that the following two factors can explain why and to what extent the prime minister surrenders cabinet portfolios to coalition partners: (1) the need to form a winning coalition in the parliament and (2) the need to gain cooperation from coalition partners in the management process. The existing literature on portfolio allocation has focused only on the first factor to explain the allocation outcomes among coalition member parties. My theory suggests that, in addition to this factor, the second factor also affects the allocation outcomes.

The prime minister of a coalition government is concerned about the quality of governance in order to stay in power for a long time as well as to accomplish many policy goals in the process of managing the coalition. While it is very much common that prime ministers have potential rivals in their parties, the extent to which coalition member parties have different policy goals varies across cabinets. Therefore, when coalition partners have different policy preferences, the prime minister surrenders cabinet portfolios to junior coalition partners in order to gain their cooperation in the management process. As a result, prime ministerial parties often surrender more cabinet portfolios than necessary merely to form a coalition.

In the next chapter, I formalize this argument to articulate the circumstances under which the prime minister of a coalition government is likely to surrender portfolios

³For instance, Austrian Federal Chancellor, Alfons Gorbach (ÖVP), stepped down from the chancellorship in 1964 due to pressure from his party's members, who had been criticizing him for making too many concessions to their coalition partner (SPÖ). Then, Josef Klaus, who was also a member of ÖVP, succeeded Gorbach to take the chancellorship in the government. Similarly, Belgian Premier, Pierre Harmel, resigned in 1966 due to the disagreements with his rivals within the party about making a compromise with a coalition partner. In Italy, Prime Minister Ciriaco De Mita (DC) was forced to resign due to the conflicts within his party over the reform of the public sector. These anecdotes suggest that the prime minister has to care about challenges from rivals within his/her party.

for the quality of governance. My theory suggests that, in addition to the formation of a winning coalition in the parliament, concerns about effective governance in the process of managing the coalition also affect the prime ministerial party's portfolio share. Hence, the prime minister's party gives up some portfolios not only when it has weak bargaining power in assembling a coalition, but also when coalition partners have different policy preferences. In addition, these two factors affect the prime ministerial party's portfolio share in a complicated manner, because there is an important interaction between them. The effect of one factor is mediated by the presence of the other factor. This interaction is the most clearly understood in terms of the propositions of a formal model shown in the following chapter.

CHAPTER IV

A Model of Portfolio Allocation: Coalition Management and Cabinet Portfolios

4.1 Introduction

This chapter formalizes the theory described in the last chapter to articulate the circumstances under which the prime minister's party of a coalition government is likely to surrender portfolios for the quality of governance. My theory suggests that, in addition to the formation of a winning coalition in the parliament, concerns about effective governance after the coalition is formed also affect the prime minister party's portfolio share. That is, the prime minister's party gives up some portfolios not only when it has a weak bargaining power in assembling a coalition, but also when coalition partners have different policy preferences because the prime minister is more likely to need cooperation from them in order to maintain the desirable quality of governance. In addition, these two factors affect the prime minister party's portfolio share in a complicated manner due to an important interaction between them. The effect of one factor is mediated by the presence of the other factor. The propositions of a formal model help understand this interaction most clearly. Hence, before analyzing data of coalition governments in Western European countries to test my theory, this chapter presents a game-theoretic model of portfolio allocation.

In modeling portfolio allocation, in order to highlight the logic of my argument, I simplify the bargaining process over cabinet portfolios as an interaction between two players—the Prime Minister (PM) and a Junior Coalition Partner (JP).¹ The two players bargain to determine the allocation of cabinet portfolios in a dynamic game framework. The game is played under complete information, where both players’ payoffs are common knowledge.

4.2 Motivations of Players

Before I present the sequence of events in the game, I describe three basic assumptions about the motivations of the players. To enhance readability, I assign different genders to the PM (a male) and the JP (a female) respectively.

Assumption 1: Both players (PM and JP) value benefits that come with cabinet portfolios. The benefits can be interpreted as policies or spoils attributed to cabinet positions. For simplicity, I assume that only two options exist in the portfolio allocation: (1) a high allocation (H) under which the PM takes a *higher* share of portfolios than his proportional share and (2) a low allocation (L) under which the PM accepts a *lower* share of portfolios than his proportional share. Let $p_i^k \in [0, 1]$ be the share of cabinet portfolios offered to party i , where $i \in \{PM, JP\}$, $k \in \{L, H\}$,

¹In the coalition bargaining settings, there are more than two actors in many cases. I could model this game as an n -player game where everyone bargains with everyone else. However, I simplify the bargaining process and consider it as an interaction between the PM and the JP in order to highlight the logic of my argument. The PM could be playing this game with all potential coalition partners simultaneously, and the model picks up one interaction. The model predicts that, in a set of reasonable conditions, the PM has to take fewer portfolios than its proportional share in the bargaining with any party that could negotiate. In other words, the PM is in a situation where he cares about policy as well as the effective governance of coalition so much that he takes less than the proportional share of portfolios. This is the simplest way to describe the mechanisms underlying portfolio allocations. Moreover, the model shows the extent to which the PM has to give up in the bargaining. The existing models that have multiple actors with continuous strategies (such as Austen-Smith and Banks 1988) do not incorporate adequate concerns for policies and effective governance. However, this is not because scholars who wrote those models did not know them. They left out these concerns because the model becomes intractable when they incorporate these issues. I simplify the model to include them and to get this angle.

and $p_{PM}^k + p_{JP}^k = 1$. By definition, a high allocation brings more benefits to the PM than a low allocation does ($p_{PM}^H > p_{PM}^L$) and a low allocation brings more benefits to the JP than a high allocation does ($p_{JP}^L > p_{JP}^H$). That is, the PM gains more benefits from a high allocation, whereas the JP gains more benefits from a low allocation.

Assumption 2: The PM cares about the quality of governance as part of his management of the coalition. Let us assume that the PM's policy preference is located at x and the JP's policy preference is located at y on a policy space defined by $[0, 1]$. The PM wants to conduct the business of government smoothly so as to achieve certain policy goals as well as to retain power for a long time. However, it is not necessarily easy for him to maintain the desired quality of governance because the JP may have divergent policy goals from the PM. If policy goals are different between the PM and the JP, they are likely to face internal conflicts in the management process. I assume the difference in policy goals in a coalition represents the cost that the PM has to pay in order to attain a desirable quality of governance. That is, the PM covers the cost of managing the government $C \in [0, 1]$, where $C = |x - y|$. I further normalize the cost of coalition governance to zero when the PM chooses a low allocation. The substantive implication of this normalization is that the PM secures the cooperation of the JP in the management process (e.g., gaining policy concessions and reducing the time to reach a compromise) by providing her with some extra cabinet portfolios.

Assumption 3: Both players (PM and JP) value the benefit of membership in an alternative coalition that could be formed with other parties. Let $E_i \in [0, 1]$ denote the expected value of benefits that party i will obtain from an alternative coalition, where $i \in \{PM, JP\}$. This value is called an outside option because the players can expect to receive it when the JP rejects the PM's offer. The value of the outside option E is determined exogenously. In order to explore the conditions under which

the PM makes a high or low offer, I normalize the benefits of cabinet portfolios such that they are higher than the values of the outside option whenever the PM makes a low allocation offer (i.e., $p_{PM}^L > E_{PM}$ and $p_{JP}^L > E_{JP}$).² That is, the PM always strikes a bargain with a party that will give him a better deal than others, and a low allocation offer from the PM is always a better deal for the JP than accepting an offer from an alternative coalition.

4.3 Sequence of Events

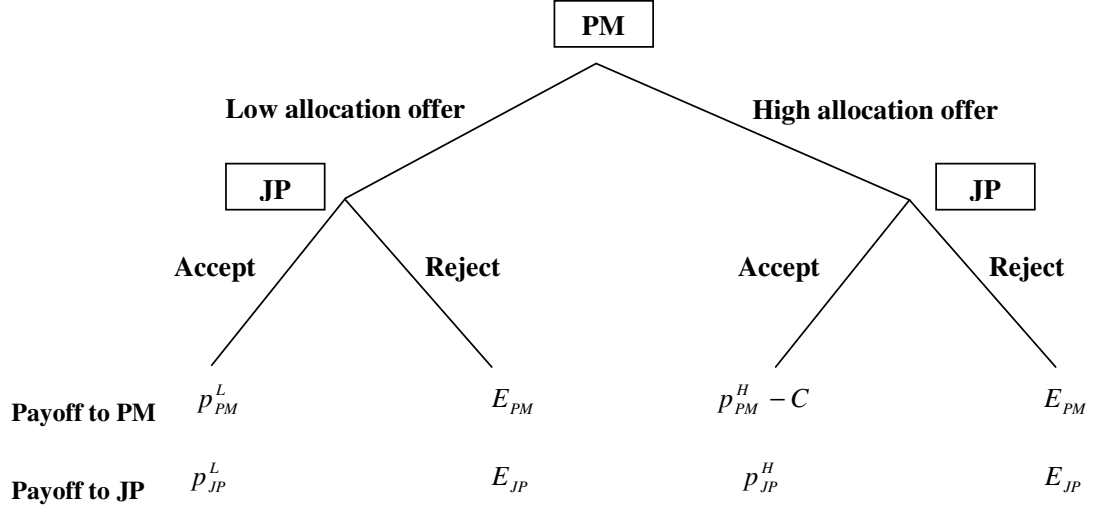
The bargaining dynamics are captured by a simple game summarized in Figure 4.1. The figure illustrates the extensive form of the game and the payoff to each party for each possible outcome. The game begins at some point after a PM is chosen in a proto-coalition.³ The sequence of events in the game is as follows. The PM first makes an offer to the JP on how to divide cabinet portfolios between them. To be more specific, the PM can choose either to make a high allocation offer p_{PM}^H , which will give more portfolios to his party, or to make a low allocation offer p_{PM}^L , which will give fewer portfolios to his party. Then, the JP responds to the PM's offer. She can choose to accept the offer, or she can choose to reject the offer and to leave the coalition.

The portfolio allocation outcome depends on the JP's reaction to the PM's offer. If the JP chooses to accept the PM's offer, both players receive the proposed share of portfolios, respectively. At the same time, the PM must pay a cost C if the accepted

²When the value of the outside option is higher than the JP's benefit from a low offer for either the PM and the JP (i.e., $p_{PM}^L < E_{PM}$ or $p_{JP}^L < E_{JP}$), a coalition is not formed between the PM and the JP.

³A proto-coalition is a set of parties that agree to form a coalition government under the presence of a formateur (Diermeier, Eraslan and Merlo 2006). There may be concerns about the endogeneity in selection of coalition partners. For instance, if the PM considers the governance of the coalition later on, he wants to choose coalition partners that would allow him to maximize his portfolio share. If that were true, however, none of my empirical results shown in the next chapter would be borne out.

Figure 4.1: Extensive Form of Two-party Game



offer is a high allocation. If the JP chooses to reject the PM's offer, the coalition terminates. The PM and the JP receive the expected value of outside option E_i .

4.4 Equilibrium Strategies

The game has a unique subgame perfect Nash equilibrium. I solve the game through backwards induction because this is a dynamic game of complete and perfect information, where common knowledge is assumed. The model provides conditions under which the PM makes a high allocation offer or a low allocation offer. The game has two stages. First, the JP makes a choice at the end of the decision node given the information she has. The JP always accepts a low allocation offer from the PM because, by definition, this offer is always a better deal for her than accepting an offer from an alternative coalition. When the PM makes a high allocation offer, however, the JP has to choose whether to accept or reject the offer because, at this decision node, it is better for her to reject the high allocation offer when she expects to receive more portfolios from an alternative coalition (i.e., $E_{JP} > p_{JP}^H$); otherwise, she is better off choosing to accept the high allocation offer.

Next, knowing the JP's expected response shown above, the PM chooses whether to make a high allocation offer or to make a low allocation offer to the JP. When the JP has a better deal from an alternative coalition than accepting a high allocation offer (i.e., $E_{JP} > p_{JP}^H$), the PM always makes a low allocation offer in order to avoid his offer being rejected by the JP. In other words, the JP is able to prompt the PM to make a high allocation offer when she has a credible outside option. When the JP has no such better deal or credible outside option (i.e., $E_{JP} < p_{JP}^H$), on the other hand, the PM has two distinct choices. His choice in this case depends on the cost of coalition governance, which comes with a high offer allocation. If the PM has to incur a high cost such that $p_{PM}^L > p_{PM}^H - C$, the PM chooses to make a low allocation offer to the JP, but otherwise he makes a high allocation offer. In summary, the equilibrium strategies of this game are as follows:

- (1) If $E_{JP} > p_{JP}^H$, (Low allocation offer, (Accept, Reject))
- (2) If $E_{JP} < p_{JP}^H$ and $p_{PM}^L < p_{PM}^H - C$, (High allocation offer, (Accept, Accept))
- (3) If $E_{JP} < p_{JP}^H$ and $p_{PM}^L > p_{PM}^H - C$, (Low allocation offer, (Accept, Accept))

The following paragraphs explain these equilibrium strategies. As I mentioned earlier, a high allocation always brings more benefits to the PM than a low allocation does. Due to the constraints he faces, however, he does not necessarily choose a high allocation. The results of the game suggest that the following two constraints affect the equilibrium outcomes:

The first constraint is the JP's outside option. Whenever the PM makes a low allocation offer, the JP accepts the offer, because it always gives more benefits to her than she expects to receive from an alternative coalition (i.e., $E_{JP} < p_{JP}^L$). On the other hand, when the PM makes a high allocation offer, the JP may not accept the offer from the PM. Whether or not she accepts a high allocation offer depends on the

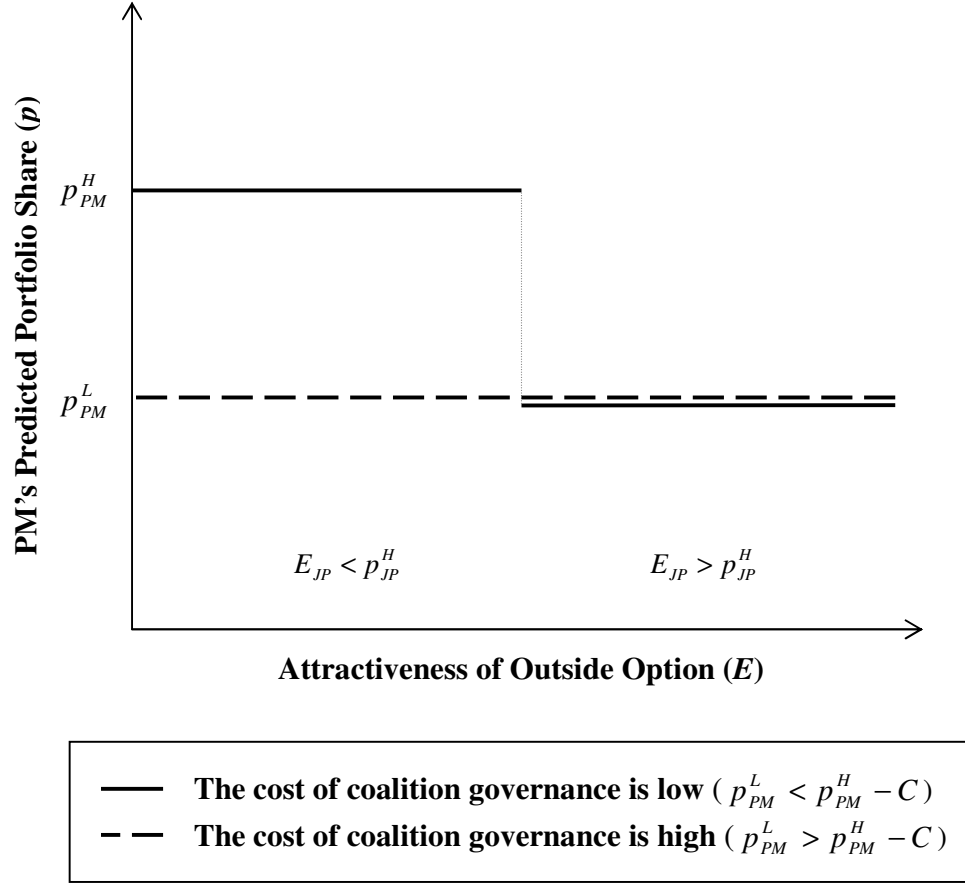
value of her outside option. If the JP has no better deal elsewhere than accepting a high allocation offer (i.e., $E_{JP} < p_{JP}^H$), she accepts the PM's offer. However, if the JP expects a better deal from an alternative coalition (i.e., $E_{JP} > p_{JP}^H$), she rejects the PM's high allocation offer. Since her rejection gives no additional benefits to the PM, he wants to avoid his offer being rejected by the JP, who will give him a better deal than others. Accordingly, the PM makes a low allocation offer whenever the JP expects a deal from an alternative coalition that is better than a high allocation. In other words, the JP is able to prompt the PM to take a low share of portfolios if she has an attractive outside option.

The second constraint is the cost that the PM has to pay for the quality of governance. The JP's outside option is not the only reason why the PM makes a low allocation offer. The PM is also concerned with the quality of governance after the coalition is formed. If the PM takes a high allocation, he incurs the cost C in order to obtain sufficient cooperation from the JP with different policy preferences. Hence, the PM may not make a high allocation offer even when the JP does not have a better outside option than accepting a high allocation offer (i.e., $E_{JP} < p_{JP}^H$). That is, even when the JP has no attractive outside option, the PM still makes a low allocation offer if his benefits from the low allocation outweigh the net benefits from a high allocation due to the high cost of coalition management (i.e., $p_{JP}^L > p_{JP}^H - C$).

4.5 Comparative Static Predictions

Figure 4.2 illustrates how the equilibrium outcome changes depending on these two factors as well as interactions between them. The horizontal axis of this figure indicates the value of the JP's outside option. The vertical axis indicates the PM's predicted portfolio share (either a high share or a low share). The straight line indicates the equilibrium outcome when the cost of maintaining the quality of governance is *low* such that $p_{JP}^L < p_{JP}^H - C$ (i.e., both players have similar policy preferences).

Figure 4.2: Prime Ministerial Party's Predicted Portfolio Share



The broken line, on the other hand, indicates the equilibrium outcome when the cost of maintaining the quality of governance is *high* such that $p_{JP}^L > p_{JP}^H - C$ (i.e., both players have divergent policy preferences).

As shown in Figure 4.2, if the value of the JP's outside option is large ($E_{JP} > p_{JP}^H$), the cost of coalition governance does not make any difference to the PM's portfolio share. This is because the PM has to surrender some portfolios to the JP in order to keep her from leaving the coalition. Under this condition, the PM chooses a low allocation offer *regardless of* the cost of coalition governance to avoid his offer being rejected by the JP. On the other hand, if the value of the JP's outside option is small ($E_{JP} < p_{JP}^H$), the PM does not need to worry about compensating the JP's benefits to keep her from leaving the coalition. However, the PM's other concern—the quality of

governance in the management process—becomes an important factor in determining his offer. Under this condition, the PM makes a high allocation offer if the JP has similar policy goals and the cost of coalition governance is low ($p_{JP}^L < p_{JP}^H - C$), but otherwise he chooses a low allocation offer in order to secure the JP's cooperation in the management process. Thus, the cost of coalition governance decides the PM's portfolio share.

In summary, the model makes the following comparative static predictions about the effect of the cost of coalition governance. When the value of the JP's outside option is large, the cost of coalition governance does not affect the PM's portfolio share; the PM always accepts a low allocation because of the fear that the JP is leaving the coalition. When the value of the JP's outside option is low, on the other hand, the cost of coalition governance affects the PM's portfolio share. If the cost of coalition governance is low, the PM takes a high allocation. However, if the cost of coalition governance is high, the PM takes a low allocation because he needs to elicit the JP's concessions in order to maintain the government's performance. Thus, the PM surrenders cabinet portfolios to the JP despite her lack of a credible outside option. This result suggests that the credibility of the outside option is not enough to draw a conclusion about the PM's portfolio share.

4.6 Conclusion

Despite the voluminous literature on portfolio allocation, much of the variation in the difference between portfolio shares and seat shares has yet to be accounted for. This chapter offered a game-theoretic model that account for the mechanisms underlying portfolio allocation in order to articulate the conditions under which the prime minister of a coalition government is likely to surrender cabinet portfolios. My theory presented in the previous chapter suggests that cabinet portfolios are allocated not only to form a winning coalition in the parliament but also to improve the quality

of governance in the process of managing a coalition; hence, the value of the outside option and the cost of coalition governance affect the portfolio share that goes to a prime minister's party. The model presented in this chapter incorporates both factors to explain the variation in allocation outcomes.

The model's comparative static predictions suggest that there is an important interaction between the two factors. Whenever parties have outside options in assembling a winning coalition, they are able to take a tough stand in the bargaining table. Hence, prime ministerial parties surrender cabinet portfolios to junior partners with credible outside options. However, this is not the sole factor that determines portfolio allocation. Since prime ministers are also concerned with the management activities after the formation of a coalition government, they also surrender portfolios even when junior partners do not have outside options. That is, prime ministers bear the cost of coalition governance; therefore, they take fewer portfolios when they need to elicit cooperation from junior partners with different policy preferences. The model further predicts that the effect of the cost of coalition governance on the shares of portfolios is most salient when junior partners do not have outside options, because prime ministers surrender portfolios *regardless of* the cost of coalition governance when junior partners have outside options. Therefore, the effect of one factor (the cost of coalition governance) is mediated by the presence of the other factor (the value of the outside option). The next chapter examines the model's predictions by using data drawn from coalition governments in Western European countries.

CHAPTER V

Empirical Analyses of Portfolio Allocation: Testing the Theoretical Model

5.1 Introduction

The theoretical model proposed in the previous chapter provides conditions under which the prime minister's party takes a higher or lower share of cabinet portfolios than its seat share. This chapter examines the theoretically predicted pattern of portfolio allocation by drawing on data from coalition governments in thirteen Western European countries. My theory suggests that the prime minister, who plays a central role in managing a coalition government, uses cabinet portfolios not only to assemble a winning coalition in the parliament, but also to facilitate coordination among coalition parties with different policy goals. Therefore, in contrast to the previous literature on portfolio allocation, which focuses only on the factor of coalition formation, the theoretical model also takes into account the effect of the potential cost of governance in the management process.

The empirical work presented in this chapter indicates that my theoretical framework better explains variations in portfolio allocation across countries and over time within countries than do prevailing proportionality or formateur-advantage theories. To be more specific, the empirical results demonstrate that the prime minister uses

portfolio allocation as an instrument to defuse tensions among coalition partners as well as to reward them for joining the ruling coalition. I find that the prime minister's party surrenders more cabinet portfolios not only as its bargaining power in assembling a coalition declines, but also as the policy preferences of coalition partners become more divergent.

This chapter proceeds as follows. In the next section, before conducting the empirical analyses, I first formulate a testable hypothesis drawn from the theoretical model. Then, I describe the data and measurement of variables for testing the hypothesis. After I present the results of empirical analyses, I conclude this chapter with a summary of my findings.

5.2 A Hypothesis for Empirical Analyses

It is indispensable for a prime minister to please his/her own party's members in order to keep the premiership because they are his/her primary supporters within the coalition. Hence, a prime minister always wants to maximize his/her party's portfolio share. However, the prime minister cannot always give many portfolios to his/her party's members. While pleasing his/her party members is important, a prime minister of a coalition government also has to attract coalition partners at the same time in order to form a majority winning coalition and manage it effectively. The theoretical model suggests that the following two factors explain the extent to which the prime minister has to attract coalition partners, which will determine the allocation outcomes: (1) the value of the outside option and (2) the cost of coalition governance.

The Value of the Outside Option

In parliamentary democracies, political parties form a coalition when no party commands a parliamentary majority by itself because they need the majority status

in the legislature to firmly control the executive branch (i.e., the government). In the process of forming a coalition, they negotiate with each other about how to allocate power among them. They typically negotiate and bargain over the seats in the cabinet table because cabinet ministers make and implement policies on behalf of the government. In this process, the strength of a party's bargaining position in assembling a majority winning coalition affects its bargaining outcome. Since parties need to have the majority status in the parliament, the extent to which a party is pivotal in building a winning coalition plays an important role in the bargaining over cabinet portfolios. Therefore, when the prime minister's party has limited capability to assemble a winning coalition in the parliament, potential and existing coalition parties are able to take a tough stand in the coalition formation process because they can walk away from the bargaining table without losing any benefits (Lupia and Strøm 2008). In other words, those coalition parties are likely to have a credible threat against the prime minister as they can build an alternative coalition without the prime minister's party. As a result, in order to deal with their credible threat, the prime minister needs to make concessions to coalition parties when his/her party has only a weak bargaining power to form a coalition (due to the limited availability of outside options).

The Cost of Coalition Governance

The value of the outside option, however, does not conclusively address the amount of concessions made in portfolio allocation. In addition to the power to assemble a winning coalition, the prime minister is also concerned with the quality of governance after the coalition is formed in order to pass government bills and stay in power. Since political parties have more or less different policy preferences, they are not always able to reach agreement to pursue common policies even when they form a coalition government. Rather, they try to avoid sacrificing their policy goals to

compromise with other coalition partners and work to advance government policies in ways that they can use to appeal to their supports. In a coalition government, it is the prime minister who plays a central role in forging consensus among such coalition parties to manage the government. When coalition member parties have divergent policy preferences, it is difficult for the prime minister to build consensus among them because the government is likely to face internal conflicts in making decisions. In other words, the prime minister has to exert extra effort to find common interests among coalition parties in managing the coalition. Accordingly, under such circumstances, the prime minister surrenders portfolios to coalition partners in order to maintain voting unity in the parliament by gaining sufficient cooperation from them.

I have so far explained that the two factors—the value of the outside option and the cost of coalition governance—prompt the prime minister’s party to accept fewer portfolios because the prime minister uses cabinet portfolios not only to assemble a winning coalition in the parliament, but also to facilitate coordination among coalition parties with different policy preferences. These two factors help explain the empirical regularity observed in Western Europe that contradicts prevailing proportionality and formateur-advantage theories. However, the two factors do not necessarily affect the prime ministerial party’s portfolio share independently of each other. The theoretical model further suggests there is an important interaction between them; the effect of one factor is mediated by the presence of the other factor.

Although prime ministerial parties with many outside options are likely to receive many portfolios, some of them have to make concessions in portfolio allocation due to divergent policy preferences among coalition parties. Therefore, the effect of outside option on the portfolio share given to the prime minister’s party should be moderate when coalition member parties have divergent policy preferences. Similarly, while prime ministerial parties are likely to enjoy strong bargaining leverage in ideologically

Figure 5.1: Relationship between Prime Ministerial Party's Portfolio Share and Two Factors

		The Value of the Outside Option	
		Small	Large
The Cost of Coalition Governance	Low	<i>High share</i>	<i>Low share</i>
	High	<i>Low share</i>	<i>Low share</i>

compact coalitions, some of them have to make concessions to coalition partners due to the limited availability of outside options. Hence, the effect of policy divergence on the prime ministerial party's portfolio share should be moderate when it has only limited capability to assemble a winning coalition in the parliament. Figure 5.1 summarizes the expected relationship between the two factors and the prime ministerial party's portfolio share. This reasoning generates the following hypothesis that articulates the circumstances under which the prime minister's party is likely to surrender portfolios:

When coalition parties have divergent policy goals (i.e., the prime minister has to bear a high cost for coalition governance), the prime minister's party always takes fewer portfolios than its seat share regardless of the value of the outside options. When coalition parties have similar policy goals (i.e., the prime minister has to bear only a low cost for coalition governance), on the other hand, the credibility of the outside option determines its portfolio share: (1) if the prime minister's party does not face any credible threat from junior partners, it receives more portfolios than its seat share, but (2) if the prime minister's party faces credible threats from junior partners, it receives fewer portfolios than its seat share.

5.3 Data and Measurements

The dataset for the empirical analysis is composed of all coalition governments formed in thirteen Western European countries between 1945 and 2000, which include those cabinets formed after an election as well as after a coalition breakdown between elections.¹ It excludes, however, care-taker governments and coalition governments in which one of the parties by itself commands a majority of seats in the parliament, because the politics within the coalition are different in those cases.² This leaves 242 observations in the dataset. In order to test the hypothesis, in the following paragraphs, I elaborate appropriate measures of variables in the empirical model.

Dependent Variable

The dependent variable, labeled *Portfolio share*, is the share of coalition payoffs allocated to the prime minister's party.³ There are three distinct measures of coalition payoffs: (1) cabinet portfolios, (2) weighted cabinet portfolios, and (3) cabinet membership.⁴ The first measure counts the number of cabinet ministries that the parties head in the government.⁵ There may be some concerns about using the number of

¹To identify coalition governments in the dataset, I relied on Müller and Strøm. (2000) and Warwick and Druckman (2006), and *Keesing's World News Archive*. Following the existing studies on portfolio allocation (Warwick and Druckman 2001, 2006), the countries in my dataset include Austria, Belgium, Denmark, Finland, Germany, Iceland, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, and Sweden. However, France is excluded because, different from other countries, the president has extensive powers (e.g., the president chairs the Council of Ministers) and, as a result, many prime ministers in France do not act as a head of government (see Thiébault 1997; Elgie and Machin 1991). In addition, in France, there are always several cabinet members who do not affiliate with any political parties, while such non-partisan cabinet ministers are very rare in other countries in Western Europe Amorim Neto (see N.d.).

²I did not find any systematic difference in empirical results among coalition types such as minority coalitions, minimum winning coalitions, and surplus majority coalitions.

³As a dependent variable, I do not employ the difference between the prime ministerial party's portfolio share and its seat share because the relationship between the two may not be always a constant; I instead use the prime ministerial party's seat share as a right-hand side variable.

⁴The data on cabinet portfolios and weighted cabinet portfolios were produced by James Druckman and Paul Warwick.

⁵In thirteen Western European countries, the average number of cabinet portfolios is 18.96. This measure does not include junior cabinet ministers (often called 'secretaries of State'), as with the existing literature on portfolio allocation, because the allocation mechanism of these positions is different. For instance, Thies (2001) argues that junior ministers are appointed from different

cabinet ministries, however, because some portfolios such as the Finance Minister and the Foreign Minister can be more important than others. If parties take into consideration the importance of cabinet ministries in the bargaining, this measure may not accurately reflect the coalition payoffs with which they are dealing. To account for this possibility, the second measure employs the number of cabinet ministries weighted by their salience scores obtained from an expert survey (Druckman and Warwick 2005). These two measures focus on the number of *cabinet ministries* that parties are going to control in the government. However, parties may instead care about the number of *cabinet members* that they are going to send to the cabinet, because a cabinet is a decision-making organ in the government. In addition, some cabinet members hold multiple portfolios concurrently; these concurrent positions could inflate or deflate the share of coalition payoffs because, for example, a deputy prime minister, who is usually appointed from a junior coalition party, tends to hold other portfolios at the same time. To deal with this concern, the third measure instead counts the number of cabinet members that each party sends to the government.⁶ I will employ each measure separately as a dependent variable and present all results.

Explanatory Variables

The first explanatory variable is *Outside option*—the credibility of the threat that the prime minister faces in the bargaining over coalition formation. The existing literature on portfolio allocation has employed multiple measures of the prime ministerial party’s bargaining power in assembling a winning coalition.⁷ For instance, Ansolabehere et al. (2005) argue that empirical studies have examined portfolio allo-

parties than the corresponding ministers so as to let them monitor each other. In addition, junior ministers do not usually attend cabinet meetings (Thiébault 1993, 80).

⁶I collected the data of cabinet membership by using Keesing’s World News Archive.

⁷Some might argue that the credibility of the outside option should be governed by the policy preferences of other parties. While parties take account of their policy preferences when they form a coalition, however, they primarily need to win majority in the parliament in order to firmly control the government.

cation by using parliamentary seat shares, but formal models actually make predictions in terms of bargaining power to assemble a winning coalition in the parliament.⁸ The best known examples to measure parties' bargaining power in the tradition of cooperative game theory are the Shapley-Shubik index (Shapley and Shubik 1954) and the Banzhaf index (Banzhaf 1968). These power indices also describe the relative importance of a party in building majority winning coalitions in the parliament.⁹ They assume that any majority winning coalitions are equally likely to be formed; hence, they ignore the possibility that cost-efficient coalitions such as minimal winning coalitions may be more likely to emerge (Riker 1962; Leiserson 1968; Axelrod 1970). In contrast to the power indices, in order to measure the relative importance of a party in building majority winning coalitions in the parliament, Ansolabehere et al. (2005) introduce the minimum-integer voting weights based on the number of minimum-winning coalitions that individual parties are able to establish in the legislature.

In this chapter, I use the minimum-integer voting weights in the parliament as a

⁸Ansolabehere et al. (2005) also claim that this discrepancy in the measurement is the main reason why empirical studies on portfolio allocation have found no formateur advantage. By using the share of minimum-integer voting weights in a coalition, they demonstrate that while the allocation of cabinet portfolios is proportional relative to the party's voting weight share, there is a strong and statistically significant formateur advantage. However, Warwick and Druckman (2006) show that formateur advantage drops significantly once they control the seat share and that the effect of voting weights is greatly reduced especially where voting weights are less correlated with parliamentary seats. In this paper, different from these studies, I employ the prime ministerial party's share of voting weights in the parliament (*not* in the coalition) to describe the strength of its bargaining position in building a coalition in the legislature.

⁹A major difference between these two indices is that the Shapley-Shubik index takes into account the order in which parties join a coalition, while the Banzhaf index does not (see Straffin 1988). That is, on the one hand, under the framework of the Shapley-Shubik index, a combination of three parties $[A, B, C]$ is treated separately from a combination $[B, A, C]$ or $[C, B, A]$. This index measures the number of times that each party becomes the last member whose support is necessary ("pivotal") to build a majority winning coalition. On the other hand, under the framework of the Banzhaf index, these combinations are treated as identical (i.e., the order in which parties join a coalition is not a factor). This index simply counts the number of times that each party is able to change ("swing") a coalition from winning to losing. In other words, the Shapley-Shubik index models the dynamics of communication process between parties assuming that they share some uniform standard to judge coalitions, while the Banzhaf index implicitly assumes parties assemble a winning coalition without considerable communications between them (Straffin 1977).

primary measure of the prime ministerial party's bargaining power.¹⁰ The value of the outside option should be larger as the prime minister's party loses its bargaining power in the parliament. Hence, in order to interpret the coefficient of the empirical model in a meaningful manner, I normalize the maximum value of this measure to zero. That is, the value of the outside option lies in the range of zero to one, and it gets closer to one as the prime minister's party becomes less critical in making a winning coalition in the parliament.

The second explanatory variable is *Policy divergence*—the differences in policy preferences among political parties that join a coalition. The cost of coalition governance increases as coalition parties have more diverse policy preferences because the prime minister is more likely to face internal conflicts in the management process. To measure the divergence of policy preferences, I employ the ideological distance between coalition parties. The ideological distance is measured by the range of the left-right ideology scores of coalition parties.¹¹ The range is calculated simply by taking an absolute value of the difference between the left-most party and the right-most party in a coalition on the ideological scale. It is given by the following formula: $|x_L - x_R|$ where x_L is the ideology score of the left-most party in the coalition and x_R is the ideology score of the right-most party in the coalition.¹² This variable is constructed from left-right ideology scores based on party manifestos, which are provided by Budge et al. (2001).

Control Variables

¹⁰I also employed the two power-index measures to assess the robustness of the empirical results based on the minimum-integer voting weights and obtained substantively the same results.

¹¹An alternative way to measure the ideological diversity is to calculate standard deviations by taking each party's size into account. This measure describes how much ideology scores are dispersed around the weighted average within the coalition. According to Warwick (1992), however, the measurement based on the range works better to explain government survivals than the measurement based on the standard deviation. Hence, this study employs the range-based measure of ideological diversity.

¹²To reduce the positive skew in the distribution, this variable is transformed by taking the square root.

I employ three control variables to provide a fully specified model: (1) *Seat share*; (2) *Ideological location*; and (3) *Number of coalition parties*. The first control variable is the share of parliamentary seats that the prime minister's party contributes to the coalition, because parliamentary seats are important political resources for parties to make legislative decisions and the party's seat share has been the main explanatory variable in the existing literature on portfolio allocation. I expect that increasing the prime ministerial party's seat share increases its share of coalition payoffs.

The second control variable is the ideological location of the prime minister's party. Since a party tends to have the most leverage when it is located at the center of a coalition (see Martin and Stevenson 2001; Tsebelis 2002), I expect there to be a relationship between the prime ministerial party's portfolio share and where the party stands in the coalition. The ideological location is measured by taking the absolute value of the difference between the prime ministerial party's ideology score and the average score of the coalition weighted by each party's size. It is given by the following formula: $|x_{PM} - \bar{x}|$ where x_{PM} is the ideology score of the prime minister's party and \bar{x} is the weighted average score of the coalition.¹³ In other words, this variable describes how far away the prime minister's party is located from the ideological center of the coalition.

The third control variable is the number of parties in the coalition. I control for the number of parties because each party in a coalition can act as a veto player in making policies (see Tsebelis 2002) and the number of negotiating parties can increase the level of bargaining complexity (Strøm and Müller 1999, 26). Since larger parties tend to gain a greater voice in the government, every party may not be equally powerful. Hence, in counting the number of coalition parties, I adopt the notion of an effective number of parties, which takes their sizes into account (Laakso and Taagepera 1979). The effective number of coalition parties is calculated as follows: $\frac{1}{\sum p_i^2}$ where is the

¹³In order to reduce the positive skew in the distribution, this variable is transformed by taking the square root.

seat share of the i th party within the coalition.¹⁴

5.4 Results of the Empirical Analysis

The hypothesis suggests that the presence of policy divergence moderates the effect of the junior partners' outside options on the prime ministerial party's portfolio share. In order to capture the conditional feature of this hypothesis, I introduce an interaction term between *outside option* and *policy divergence* into the empirical model. The following model is used to test the hypothesis:

$$\begin{aligned} PM's \text{ share of coalition payoffs} = & \beta_0 + \beta_1 \text{Outside option} + \beta_2 \text{Policy divergence} \\ & + \beta_3 \text{Outside option} \times \text{Policy divergence} + \beta_4 \text{Controls} + \varepsilon \end{aligned}$$

Table 5.1 presents the results of the regression analysis.¹⁵ To construct the dependent variable, I employ three measures of coalition payoffs: (1) cabinet portfolios, (2) weighted cabinet portfolios, and (3) cabinet membership. These results are shown in Column 1, Column 2, and Column 3, respectively. I employ robust standard errors, where identical compositions of coalition parties are the clusters, in order to conduct the hypothesis testing.¹⁶ The table reports estimates of the coefficients and the robust standard errors.

The results in Table 5.1 provide strong support for the hypothesis. My findings

¹⁴The empirical results are substantively the same even when the number of coalition parties is employed without taking their sizes into account.

¹⁵The dependent variable is a proportion, but I present the results based on an ordinary least squares (OLS) model because the value of portfolio share mostly lies in the range of 0.2 and 0.8. In addition, since individual cabinet portfolios are not assigned independently from each other, using the binomial distribution, which requires the assumption that ministerial positions are allocated independently of one another, is not appropriate in this analysis (for example, prime ministerial parties do not usually take a vice prime minister's position). However, in order to provide a robustness check on these results, I also ran the model by using beta maximum likelihood estimation (BMLE) (see Paolino 2001) and obtained similar results.

¹⁶This clustering implies that allocation outcomes are independent across coalitions that have different parties but not necessarily independent within coalitions that have the same composition of parties. The results are substantively the same even when individual countries are the clusters.

Table 5.1: Effects of Outside Option and Policy Divergence on Prime Ministerial Party's Portfolio Share

Independent variables	Dependent variable: PM's portfolio share		
	unweighted portfolio	weighted portfolio	membership
<i>Outside option</i>	-0.364 (0.185)**	-0.537 (0.162)***	-0.365 (0.168)**
<i>Policy divergence</i>	-0.024 (0.007)***	-0.024 (0.007)***	-0.031 (0.007)***
<i>Outside option × Policy divergence</i>	0.053 (0.029)*	0.070 (0.025)***	0.071 (0.027)***
<i>Seat share</i>	0.671 (0.051)***	0.612 (0.056)***	0.724 (0.052)***
<i>Ideological location</i>	0.025 (0.005)***	0.019 (0.005)***	0.025 (0.005)***
<i>Number of coalition parties</i>	-0.035 (0.011)***	-0.035 (0.011)***	-0.026 (0.010)**
<i>Constant</i>	0.281 (0.069)***	0.377 (0.071)***	0.254 (0.063)***
R-squared	0.88	0.88	0.90
N	220	220	220

Robust standard errors (clustered by coalition) in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1% (two-tailed)

suggest that the prime ministerial party's portfolio share increases as the party contributes a greater share of parliamentary seats to the coalition, but that the party's seat share does not fully account for the allocation outcomes. I find, in addition to the share of parliamentary seats, other factors such as outside option and policy divergence also affect the prime ministerial party's portfolio share.

The coefficient estimate of outside option (β_1) indicates the effect of the outside option on the prime ministerial party's portfolio share when the cost of coalition governance is zero (i.e., when coalition parties have very similar policy preferences). The hypothesis suggests that this coefficient takes a negative value because, under this condition, the prime minister's party should receive fewer portfolios as the value of the outside option increases. That is, the prime minister's party reduces its portfolio share as it loses its bargaining power in the parliament. The results in Table 5.1 show that, as predicted, the coefficient is negative as well as statistically significant at the 5% level (in Column 1 and Column 3) and at the 1% level (in Column 2). This

coefficient is also substantively significant. The results show that a one-standard-deviation increase in the value of the outside option is associated with a 3-5 percentage point decrease in the prime ministerial party's portfolio share. This outcome implies that the outside option alone could produce a 15-25 percentage point difference in the prime ministerial party's portfolio share (the equivalent of 3-5 portfolios in the cabinet) in total under the circumstance that coalition parties have very similar policy goals.

The coefficient estimate of policy divergence (β_2) indicates whether policy divergence makes any difference to the prime ministerial party's portfolio share when the value of the outside option is zero (i.e., when the prime minister's party has very strong bargaining power in the parliament). The hypothesis suggests that this coefficient also takes a negative value because, under this condition, the prime minister's party should take fewer portfolios as coalition parties have more divergent policy preferences. That is, the prime minister's party reduces its portfolio share as the cost of coalition governance increases. The results show that the coefficient is negative as predicted and statistically significant at the 1% level (in all three columns). This effect is substantially significant as well. The results indicate that a one-standard-deviation increase in policy divergence is associated with a decrease in the prime ministerial party's portfolio share of around five percentage points, or the equivalent of about one position in the cabinet. This outcome implies that policy divergence could produce approximately a 26 percentage point difference in the prime ministerial party's portfolio share (the equivalent of five portfolios) across its entire range when the prime minister's party is in an advantageous position in the formation of a winning coalition.

The hypothesis further predicts that the two factors affect portfolio allocation in an interactive manner. That is, the effect of the outside option on the portfolio share given to the prime minister's party will diminish as coalition member parties have

more divergent policy preferences because the prime minister needs to put together the coalition so as to prevent internal conflicts. Similarly, the effect of policy divergence on the prime ministerial party's portfolio share will diminish as the value of the outside option declines (i.e., the prime minister's party loses its bargaining power to assemble a winning coalition in the parliament) because the prime minister has to surrender portfolios to coalition partners in order to keep them from leaving the coalition. The coefficient of the interaction term (β_3) in the table captures how the effect of one factor is mediated by the presence of the other factor. A positive coefficient implies that, as suggested by the hypothesis, the effect of each factor on the prime ministerial party's portfolio share disappears as the value of the other factor increases. The results in Table 5.1 show that this coefficient is positive as predicted and also statistically significant at the 10% level (in Column 1) and the 1% level (in Column 2 and Column 3).¹⁷ Accordingly, the hypothesis is supported by the data.

This result is also confirmed by Figure 5.2, which plots the estimated effects of policy divergence and the outside option on the prime ministerial party's portfolio share. This figure actually corresponds to Figure 4.2 in the previous chapter. The horizontal axis of this figure indicates the value of the outside option. The vertical axis displays the predicted portfolio share that goes to the prime minister's party. The black sloped lines demonstrate how the prime ministerial party's *predicted* portfolio share changes across the range of the outside option, while holding the value of policy divergence constant at 1.5 standard deviations below the average (Line A) and at 1.5 standard deviations above the average (Line B). In other words, Line A indicates the prime ministerial party's predicted portfolio share when coalition parties have similar policy goals (i.e., the cost of coalition governance is low), while Line B describes the prime ministerial party's predicted portfolio share when coalition parties have

¹⁷It is adequate to conduct a one-tailed test of the null hypothesis $H_0 : \beta_3 \leq 0$ because the hypothesis predicts that the interaction effect exists only in a positive direction. It yields p-values of 0.035 (Column 1), and 0.003 (Column 2).

divergent policy goals (i.e., the cost of coalition governance is high).¹⁸ The two gray lines along each black line indicate the upper and lower bounds of the 90% confidence interval. In this figure, control variables including the prime ministerial party's seat share are held constant at their mean values. The gray shaded area displays the region where the predicted portfolio share is lower than the proportional share.¹⁹ The three figures correspond to the three columns in Table 5.1, respectively.

Figure 5.2 explicitly illustrates why considerable variation exists in the disparity between the prime ministerial party's portfolio share and its seat share. It demonstrates that, when the value of the outside option is low (i.e., when the prime minister's party has strong bargaining power to assemble a coalition), policy divergence makes a significant difference to the prime ministerial party's portfolio share, whereas, when the value of the outside option is high (i.e., when the prime minister's party has only weak bargaining power), policy divergence does not make any difference to the prime ministerial party's portfolio share. The figure also shows that, when policy divergence is low (Line A), the prime minister's party takes fewer portfolios as the value of the outside option increases; however, when policy divergence is high (Line B), the prime ministerial party's portfolio share is low regardless of the value of the outside option.

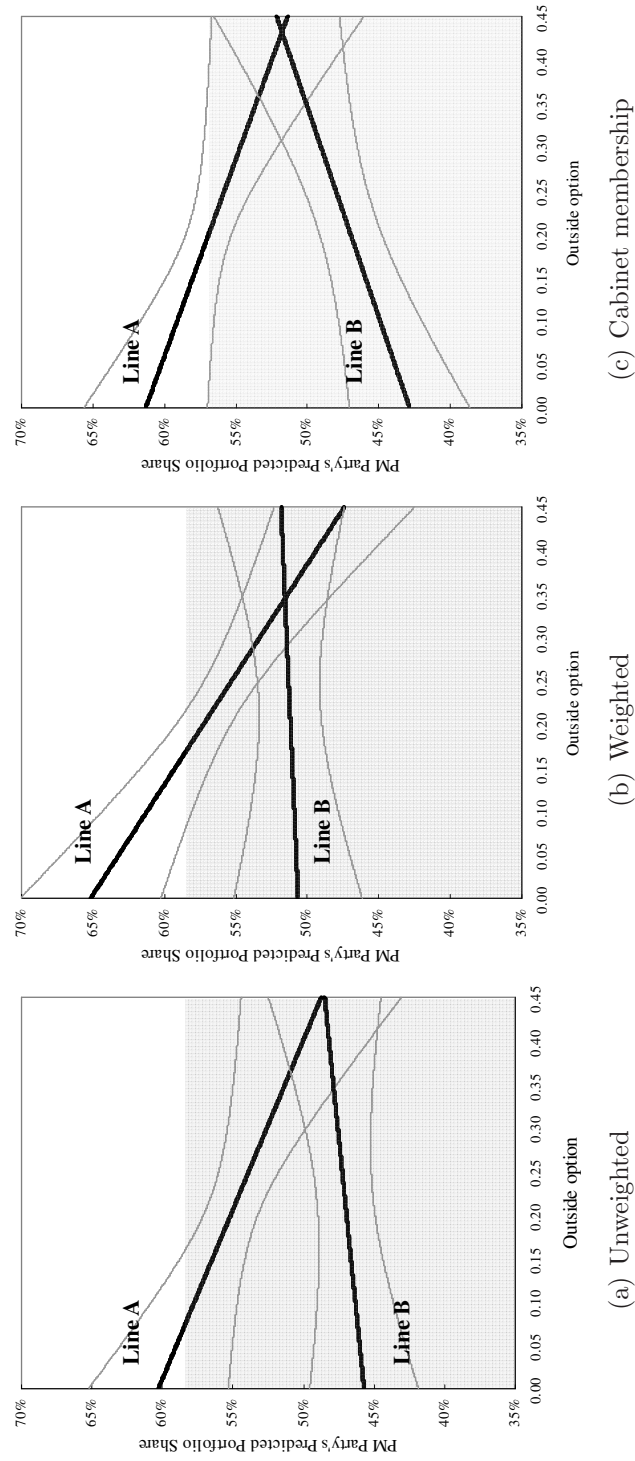
5.5 Summary of Findings

In summary, my findings indicate that portfolio allocation is not solely determined by the share of parliamentary seats that parties contribute to a coalition. Since coalition payoffs are distributed among coalition parties to command the parliamentary majority, the prime minister's party takes fewer portfolios as it becomes weaker in the bargaining over coalition formation. However, this is not the whole story of port-

¹⁸Roughly speaking, the coefficient of β_1 in Table 5.1 corresponds to the slope of Line A; the coefficient of β_2 indicates the difference (in the vertical dimension) between Line A and Line B on the left-most side of the figure; and finally, the coefficient of β_3 describes the shifting pattern in the difference between Line A and Line B.

¹⁹The average seat share among prime ministerial parties in the dataset is 57.8%.

Figure 5.2: Prime Ministerial Party's Predicted Portfolio Share



folio allocation and coalition politics. Even when the prime minister's party is in an advantageous position in the formation of a winning coalition, the prime minister still surrenders coalition payoffs to coalition partners if coalition partners have diverse policy preferences. In other words, both the outside option and policy divergence together alter the prime ministerial party's portfolio share in a very systematic manner. These results strongly support my central claim that the prime minister uses portfolio allocation as an instrument to improve not only the ease of forming a coalition at the time of bargaining but also achieving voting unity in the legislature to manage the coalition government. Moreover, the results also explain why the share of portfolios given to the prime minister's party reflects neither proportionality nor formateur advantage in most of the Western European countries. The prime minister often surrenders portfolios to junior partners because of the need to put together a stable, functional coalition.

CHAPTER VI

An Extension to Intra-Party Bargaining: Portfolio Allocations among Party Factions in Japan

6.1 Introduction

Much of the existing literature on portfolio allocation focuses on the process of forming a coalition to explain how these decisions are made among parties. Hence, the main actors in the literature have been political parties. However, bargaining over cabinet portfolios also takes place *within* parties. Party leaders decide how to allocate portfolios among their party's members, but they do not necessarily allocate portfolios at their sole discretion because many parties have internal divisions or factions that influence these decisions. Yet, we know little about the allocation of cabinet portfolios within parties. How do the dynamics of portfolio allocation work within parties?

Studying portfolio allocation within parties is important because the resulting portfolio allocation reflects the bargaining dynamics within the party and affects the extent to which party members are willing to behave in a disciplined manner in the parliament.¹ This chapter explores the question by examining an important case

¹Party members establish leadership and delegate some authority to a leader; the party leader coordinates among party members to decide whose interests ought to predominate in formulating policy programs or in deciding the allocation of cabinet portfolios. In this process, bargaining takes

in Japan where highly institutionalized factions have existed in the ruling party—the Liberal Democratic Party (LDP)—for over a long period of time. The long-dominant LDP provides an excellent case for analyzing portfolio allocation within a party because the existence of explicit factions allows us to investigate the allocation mechanisms in detail. In addition, the LDP’s long tenure in power enables us to control for party status in the government.

In Japan, the LDP has dominated the government since the party was established in 1955.² The party has explicit internal divisions in the form of factions, and the single party government of the LDP is the result of an agreement between factions.³ These factions together command a majority in the parliament, while at the same time, they fight over control within the party. Accordingly, the LDP has often been described as a coalition of factions (Leiserson 1968; Sartori 1976). In the LDP government, a single party leader, who is chosen through factional competition, concurrently assumes the position of prime minister and decides the allocation of cabinet portfolios. Government positions, including cabinet portfolios, have long been allocated

place within parties because some party members have to give up their interests for the sake of party unity.

²The LDP was established in November, 1955 by the merger of two major conservative parties at the time—the Liberal Party and the Democratic Party. The Japanese party system had been highly fragmented and unstable until 1955. The conservative wing was divided among several parties and struggled for power. However, the merger of socialist groups spurred the conservative wing to form a unified party (Masumi 1985). The LDP has kept a dominant position in the Diet, the Japanese national parliament, since 1955 and held the government by itself for a long time. This one-party dominant regime lasted until 1993, when the LDP members split the party due to internal disputes over the electoral reform legislation that abolishes the single non-transferable vote system (SNTV) to introduce a hybrid system of single-member districts and proportional representation in the lower house elections. The LDP lost the power for a brief period but returned to the office in 1994 by building a coalition with the Japan Socialist Party and the New Party *Sakigake*. The three-party coalition government ended in 1998 when the LDP gained an absolute majority in the Diet. The LDP formed a coalition with the Clean Government Party in 1999 after it failed to maintain a majority in the upper house to stay as a strong ruling party. However, allowing a landslide victory to the Democratic Party of Japan (DPJ) in the general election in 2009, the LDP completely lost the governing power.

³Individual factions of the LDP are operated financially independent of the party. These factions have their own office spaces near the party headquarters building and hold meetings regularly in order to exchange information between faction members (Iseri 1988, 62). As individual factions have some seniority rule in distributing benefits, faction members rarely switch factions in the LDP once they affiliate with any one of factions.

among factions within the party.⁴

The existing literature on coalition governments has shown that cabinet portfolios are allocated in *proportion* to a member party's seat share in a coalition. This finding is relevant to understanding portfolio allocation among factions because the competition for cabinet positions induces party factions to think about office payoffs in very much the same manner as do political parties (Mershon 2001, 280). However, the empirical evidence in Japan shows that there is considerable variation in allocation outcomes. If we scrutinize the relationship between portfolio shares and seat shares among factions within the LDP, we find that the party leader's faction does not always receive a proportional share of cabinet portfolios; sometimes party leaders disproportionately favor their own factions while at other times they do not.⁵ For instance, Kakuei Tanaka is a famous LDP politician, who was chosen to be a party leader in 1972. His first allocation gave his faction a 13.8 percent higher share of portfolios than its seat share within the party, which is equivalent to two additional positions, when compared to a proportional allocation. When Tanaka reshuffled the cabinet in 1973, his faction decreased its portfolio share while it still gained a 6.1 percent higher share of portfolios than its seat share. As I will explain in detail later, these deviations from proportionality are not generated by the indivisibility of cabinet portfolios (i.e., the “lumpiness” in translating seat shares into portfolios). These results imply that factors other than the seat share also affect portfolio allocation. However, the existing studies, which focus mostly on the overall pattern of portfolio allocation, do not explain these changes in allocation outcomes across cabinets over time.

⁴In allocating cabinet portfolios, the LDP factions appear to work like political parties in coalition governments. Indeed, the Japanese newspapers report cabinet members' factional affiliation as well as their seniority (the number of terms they have served in the Diet previously) whenever a new cabinet is established.

⁵The metric used here as a reference to proportionality is the share of seats that the faction controls in the lower house of the Diet—the Japan's national parliament; it is not the faction's seat share in the party's chief representative body (e.g., the National Convention).

In this chapter, to understand the significant variation in allocation outcomes, I extend the theoretical framework developed in Chapter III. Knowing the respective shares of party seats is not sufficient to understand the pattern of portfolio allocation among factions. Here, I argue that, like many prime ministers of coalition governments who use portfolio allocation as an instrument to manage the coalition, a party leader also uses his authority over the allocation of cabinet portfolios to prevent his rivals from usurping his power.⁶ In other words, portfolio allocation among party factions is a product of the party leader’s “political strategy.” The core premise of my argument is that the party leader, who has incentives not only to achieve policy goals but also to survive as long as possible, is concerned about defections and challenges from internal rivals. In order to prevent his rivals from attempting to depose him as leader, the party leader surrenders cabinet portfolios to his rival factions. Hence, the party leader’s faction receives fewer portfolios as the risk of internal threats increases. Statistical analysis of original data on portfolio allocations in Japan between 1964 and 2007 supports this argument. The findings suggest that the share of portfolios controlled by the party leader’s faction declines as the party leader becomes more vulnerable to challenges by internal rivals. Thus, the results show that such factors as party fragmentation, public opinion, and factional balance affect the bargains that the party leader chooses to strike with his internal rivals.

This chapter is organized as follows. In the next section, I review the literature on portfolio allocation and investigate temporal variation in patterns of portfolio allocation within the LDP. In the third section, I present a theoretical argument about the mechanisms underlying portfolio allocation among factions to explain the observed patterns. After I describe the data and measurement of variables in the fourth section, I present the results of empirical analyses and illustrate their substantive implications by discussing a real-world example from Japanese politics. In the conclusion, I sum-

⁶In this chapter, I assign a male gender to a party leader.

marize the important findings of this study and the broader implications for future research.

6.2 Contending Perspectives and Questions on Portfolio Allocation

There has been an extensive amount of research on portfolio allocations at the level of parties in coalition governments. Some research predicts that portfolios will be allocated in *proportion* to a member party's seat share in the coalition (Gamson 1961; Browne and Franklin 1973; Browne and Frendreis 1980). This proportionality proposition is called "Gamson's Law." Other research predicts that the formateur party—the party formally given the first opportunity to build a coalition and typically the party from which the prime minister hails—will gain a share of portfolios that is *more than proportional* to its seat share (Baron and Ferejohn 1989). Scholars disagree over whether the formateur party takes a larger share of portfolios than other coalition partners do (Morelli 1999; Diermeier and Morton 2005; Fréchette, Kagel and Morelli 2005; Ansolabehere et al. 2005), but empirical studies show that parties overall receive shares of portfolios proportional to the share of seats they contribute to the coalition (Warwick and Druckman 2001, 2006; Druckman and Warwick 2005).

These studies focus on the process of coalition formation, treating cabinet portfolios as the reward for joining a coalition. Leiserson (1968) suggests that such a coalition formation mechanism is also found within the LDP. He argues that while party factions together form a coalition within the party, the group of factions that controls the party's majority does not monopolize all the cabinet portfolios. Instead, party leaders allocate portfolios widely among factions, including ones that are not indispensable to building a winning coalition within the party, because of the need to soften the opposition of rival factions.⁷ If he is right, Gamson's Law appears to

⁷Since LDP factions together command a majority in the parliament, a party leader has to

hold across party factions as well.⁸ However, subsequent studies have shown that the allocation outcomes in the LDP are not always proportional.

The empirical studies of the LDP demonstrate that the mainstream factions—the set of factions that endorsed the eventual winners in the party’s presidential elections (Kato and Mershon 2006, 82)—received more portfolios than their seat shares at the expense of other factions until the 1960s, but that these factions began to receive only a proportional share of portfolios after the 1970s (Sato and Matsuzaki 1986; Kohno 1997). Scholars have explained this shift in the pattern of portfolio allocations as a consequence of the development of a proportionality norm within the LDP (Sato and Matsuzaki 1986) or as a result of rational adjustment to the optimal strategy of the party leader (Kohno 1997). Kawato (1996), on the other hand, argues that the shift in the allocation pattern occurred at the end of the 1970s because the LDP did not defeat the opposition by a wide margin and, at the same time, the number of senior members who had never served in the cabinet decreased in the party. Kato and Mershon (2006) further point out the effect of changes in the mode of leadership selection in the LDP.

These existing studies examine the overall trend of portfolio shares allocated to mainstream factions and do not explain various important changes in portfolio allocations within the party. In addition, the composition of mainstream factions is not necessarily explicit. Since factional alliances are invisible to voters, factions freely coalesce and separate within the party depending on the prevailing political conditions. Moreover, party leaders of the LDP are not always chosen at the national convention. Indeed, many leaders, such as Eisaku Sato, Takeo Miki, and Takeo Fukuda, have been chosen without ever having to contest elections at the party’s national convention.⁹

allocate cabinet portfolios to *all* factions in order to pass government bills in the parliament.

⁸Wada and Schofield (1996) also argue that cabinet positions are allocated proportionally among LDP factions because faction leaders use the threat of exiting from the party.

⁹Among twenty-two leaders of the LDP, seven were chosen through backroom negotiations without elections in order to avoid excessive conflicts within the party.

Since it is not always evident which faction is a part of the mainstream and which one is not, the exclusive focus on mainstream factions could obscure the portfolio allocation mechanisms within the party.

In the LDP government, one person dominates the party and the government. That is, a single party leader, who is typically a faction leader, controls the executive as a prime minister at the same time. The leader always wants to reward his faction members as much as possible in allocating portfolios because they are his primary supporters within the party. Hence, a closer examination of the portfolio share given to the party leader's faction should reveal a more accurate picture of the mechanisms at work in portfolio allocation.

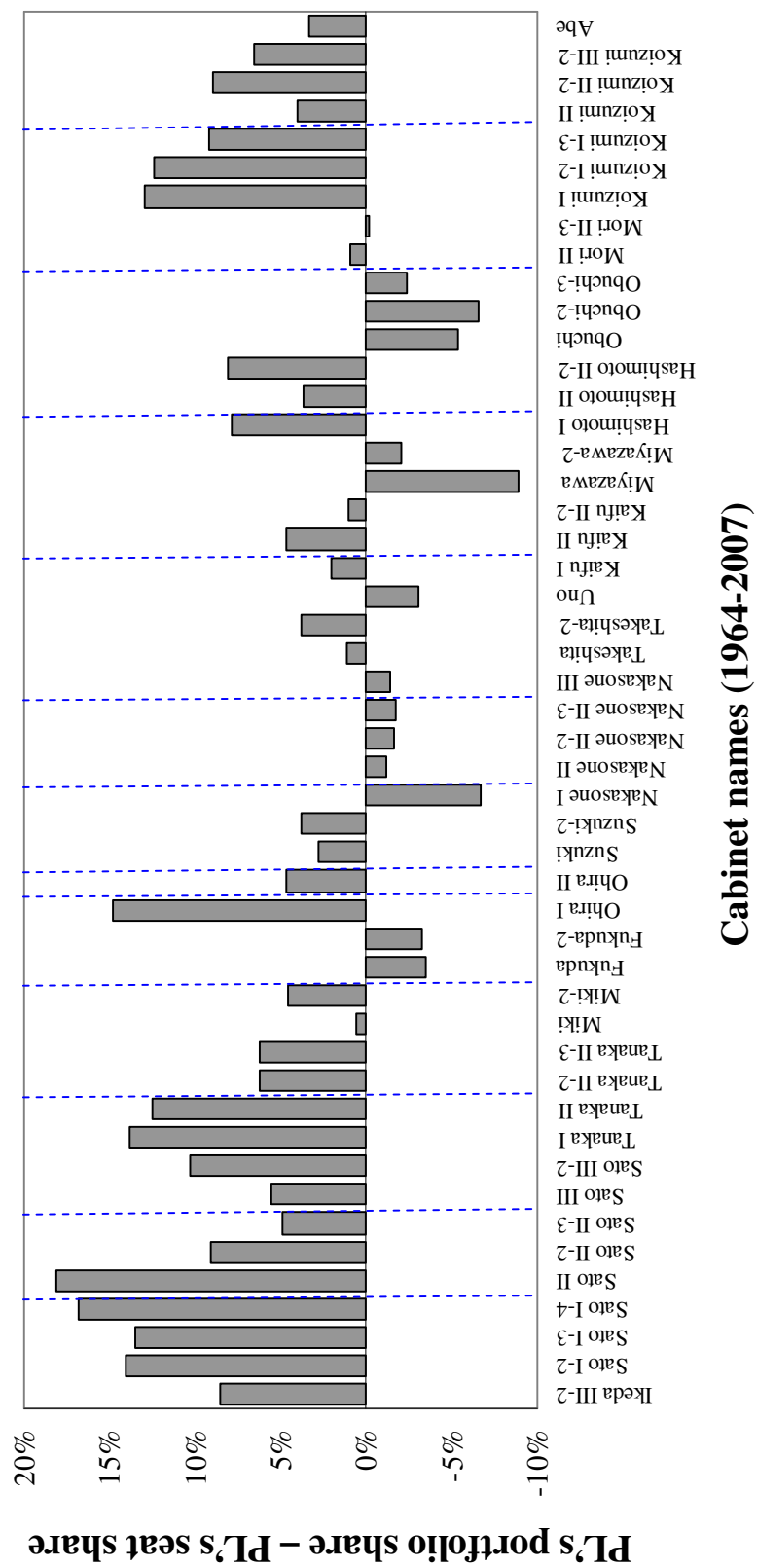
An exclusive focus on the party leader's faction shows that there is considerable variation in its portfolio share over time. The shares changed frequently both before and after the 1970s and even between elections. Figure 6.1 shows changes in the share of portfolios given to the party leader's faction between 1964 and 2007.¹⁰ The horizontal axis indicates the party leader's name in chronological order. The vertical axis indicates the party leader faction's share of portfolios relative to its share of seats within the party.¹¹ A positive value on this axis implies that the party leader's faction received more portfolios than its seat share within the party. A 10-percentage point change is equivalent to two positions in the cabinet. The vertical dotted lines on this figure show the times when the power balance between factions changed due to parliamentary elections.

The allocation results shown in Figure 6.1 provide three important implications for the study of portfolio allocations. First, the party leader's faction tends to take more portfolios than its seat share within the party and seldom receives fewer portfolios. While this tendency appears to be consistent with the argument about formateur

¹⁰The figure excludes the period when the LDP lost the premiership between 1993 and 1996.

¹¹The denominator of the faction's seat share is the party's total number of seats in the Diet, Japan's national parliament. The upper house members have been excluded in calculating the number of seats because it is mostly the lower house members who occupy the cabinet positions.

Figure 6.1: Portfolio Allocation among Factions within the LDP



advantage in the existing literature on portfolio allocation, it is actually the opposite from what we observe empirically in coalition governments in Western Europe. The prime minister's party in a coalition government almost always receives fewer portfolios than its seat share within the coalition. It rarely receives more portfolios than its seat share.¹² Second, there are not only positive deviations from proportionality but also changes over time. The party leader's faction does not always receive many more portfolios than its seat share. On the contrary, substantial variance exists from cabinet to cabinet. On occasion the party leader's faction even receives *fewer* portfolios than its seat share. Third, many of these allocations occur without new elections. The party leader often reshuffles the cabinet and alters the allocation even when the power balance between factions remains almost the same.

Mershon (2001) examines portfolio allocations among factions in the Italian Christian Democratic Party to explain some of the variation in the allocation outcomes. She argues that factions' ideological location as well as their choice of coalition partners influence their shares of cabinet portfolios because the cost of building a coalition government with other parties is different among factions; therefore, the left-right median factions within the party sacrifice the least in portfolio allocations, while other factions surrender portfolios depending on the ideological location of coalition parties. However, her explanation does not apply to the variation in portfolio allocations within the LDP, because the LDP has maintained a single-party majority for a long time and its factions have not had to sacrifice cabinet seats in order to establish a coalition government. In the next section, I develop a theoretical framework that accounts for variation of portfolio allocation outcomes within the LDP and then present hypotheses for testing the theoretical predictions.

¹²Even in Japan, the portfolio allocation among coalition parties follows the same pattern observed among coalition governments in Western Europe. For example, in the coalition government formed in 1993, the prime minister's party, the Japan New Party, took a lower share of portfolios than its seat share within the coalition. It received only 5.5% of cabinet portfolios even though the party contributed 14.4% of parliamentary seats to the coalition. This coalition government was composed of seven diverse parties.

6.3 Leadership Strategy and Portfolio Allocation

In many parties, party members establish leadership to overcome collective action dilemmas because rational behavior for individual members may lead to undesirable outcomes in the legislature (see Cox and McCubbins 1993). In order to enforce party discipline, the leaders facilitate coordination among party members who are formally equal members in the parliament. However, the leaders are not necessarily able to control the party and punish defectors effectively because the incumbent leader always faces challenges from internal rivals who also want to become party leader. The LDP's party leader is not an exception. In selecting a party leader of the LDP, faction leaders mobilize their faction members to provide support for a particular candidate, by helping them with their reelection and career advancement (Curtis 1988; Ramseyer and Rosenbluth 1993; Cox, Rosenbluth and Thies 2000).¹³ Even after LDP members choose a party leader, faction leaders can replace the party leader at any time by securing support from a majority of the party. Furthermore, they can also block the passage of government bills in the parliament.

The party leader is not helpless, however. For one thing, he can strategically allocate cabinet portfolios among factions in order to prevent challenges from internal rivals. The cabinet positions work as loyalty rewards for party members, because assuming these positions increases their political influence in the party as well as the government. It is also indispensable for party members to gain experience in several important positions if they want to be promoted to a higher rank in the party (Sato and Matsuzaki 1986).¹⁴ Therefore, faction leaders strive to bring as many portfolios

¹³Internal rivals for an incumbent leader of the LDP are mostly faction leaders. The LDP candidates usually spend a huge amount of money to cultivate personal vote in pursuit of election because they face severe intra-party competition under the SNTV (Cox and Thies 1998). Faction leaders help such faction members raise money to support their reelection (see Hirose 1989; Iwai 1990). In other words, by using their extra resources (such as time and money), faction leaders organize party members to win party's top position.

¹⁴In many parliamentary democracies, cabinet ministers are recruited from parliament (Blondel and Thiébault 1991). They usually do not spend many years in the same post; they rather move from post to post within a very short period of time (see Huber and Martinez-Gallado 2008).

as possible to their faction members in order to earn faction members' loyalty (see Masumi 1985). Similarly, by allocating cabinet positions, the party leader attempts to gain sufficient support from faction leaders to control the party. In other words, the party leader can use the authority to allocate portfolios as an instrument to fend off challenges from internal rivals; therefore, the likelihood of challenge from rivals affects the allocation of cabinet portfolios within the party.

The political strategy explanation predicts a clear pattern of behavior: the fear of being replaced motivates the party leader to surrender many cabinet positions to his rival factions. The party leader wants to give preferential treatment to his fellow faction members, but he cannot always do what he wants due to the fear of replacement. The party leader is concerned mostly with challenges from internal rivals. In order to retain the leadership position as well as to maintain party discipline, a party leader has to gain support from multiple factions. Thus, the party leader provides his faction members with many cabinet portfolios when he is strong enough to fend off challenges from internal rivals, but he gives up some portfolios in order to prevent his rivals from usurping his power when he is not strong enough to control the party. Consequently, the party leader's faction receives fewer portfolios as the risk of internal threats increases.

The Fear of Replacement

The chance of being challenged from internal rivals can be driven by the environment in which the party leader is competing. The party leader of the LDP is chosen through a competition between rival factions. He is able to control the party and remain in power so long as no rivals command a majority in the party. When no faction has a majority by itself, removing the party leader from power requires cooperation among rival factions.¹⁵ It is not always an easy task for rival factions

¹⁵The LDP's largest faction holds only about 15-20% of seats within the party.

to cooperate, however, because they have to overcome the collective action problem (Olson 1965). The party leader is able to play one faction against another to maintain control. For instance, by providing portfolios as selective incentives, party leaders can take advantage of the fragility of cooperation among rival factions.

The number of factions affects whether rival factions can overcome the collective action problem to challenge the incumbent leader.¹⁶ When there are many factions in the party (i.e., the party is fragmented), internal rivals cannot overcome the collective action problem as easily because they find it difficult to reach agreement; thus, the party leader is less likely to face serious challenges. On the other hand, when the number of factions is small (i.e., the party is less fragmented), the party leader is more likely to face serious challenges from internal rivals, because rival factions can easily unite to fight against the incumbent leader. Since the fear of replacement decreases the party leader faction's portfolio share, this line of argument generates the following hypothesis:

Hypothesis 1: An increase in the number of factions (the fragmentation of the party) reduces the fear of replacement, and thereby increases the party leader faction's portfolio share.

The party leader's characteristics also affect the chance of challenges that the party leader faces from internal rivals. A party leader's popularity among voters is one of his most important political assets for controlling the party and staying in power. In hiring and firing a party leader, party members care about the public attitude toward their party and government because the party's brand name affects their

¹⁶The number of factions within the LDP varies across time in the range between four and fourteen. It is mostly determined by factors other than portfolio allocation. For instance, the existing studies suggest that changes in the rules of the party's presidential election (Sato and Matsuzaki 1986, 239) and in the regulations of political fund-raising (Curtis 1988; Kohno 1997, 84) reduced the number of factions in the LDP in the mid-1970s. Since individual factions have some seniority rule in distributing benefits, faction members rarely switch factions.

chance of reelection (see Miyake 1989). The party's brand name is often devalued by scandals, corruption, or unpopular policies. The party leader plays a significant role in maintaining the party's brand name and attempts to impress the electorate in order to win the trust of voters (Ramseyer and Rosenbluth 1993). Indeed the opinion poll data of the LDP indicate the party leader's reputation boosts the party's popularity, but not the other way around (Burden 2005). Hence, a party leader should be less likely to face challenges from internal rivals when he is a popular figure among the broader public. In other words, a popular party leader can prevent his rivals from usurping his power.

The party leader's external popularity, however, does not conclusively determine the fate of party leaders. The party leader's internal strength also affects the likelihood of being challenged from internal rivals because unpopular party leaders can sometimes stay in power by gaining sufficient support from their faction members. A party leader of the LDP is elected either at the party's national convention or as a result of backroom negotiation between faction leaders. In either case, the number of faction members plays a significant role in this process (Tanaka 1986).¹⁷ A candidate for the party leadership position has to form a factional alliance in order to win (see Leiserson 1968). Barriers of various sorts between some factions, such as personal enmity, historical lineage, and some minor differences in policy orientation, prevent them from entering a coalition together. However, since LDP factions are not making any commitment to voters on policies, they coalesce and separate relatively freely within the party.¹⁸ A party leader mobilizes his faction members as a first step toward

¹⁷The LDP members who have seats in the Diet play an important role in selecting a party leader because votes at the national convention are heavily weighted for the Diet members as super delegate; these members also control the votes of general party members by assuming their party membership dues.

¹⁸Portfolio allocations within the LDP may not directly affect policy outcomes as suggested in the ministerial government literature (e.g., Laver and Shepsle 1996, 1999*b*) because LDP factions do not necessarily have clear-cut policy preferences as do political parties. However, portfolio allocations affect the degree of party discipline. In addition, the shifting in factional control often changes the party's overall policy outcomes (see McCubbins and Thies 1997) because internal rivals often emphasize different ideas about the choice of policy programs to legitimize their challenges against

commanding a majority. If the party leader's faction is in an advantageous position to assemble a majority in the party, other rivals cannot easily replace the incumbent leader. Therefore, the party leader who leads a faction with strong bargaining power should be less likely to face challenges from internal rivals.

In summary, the party leader's characteristics—his external popularity among the broader public and his internal strength in commanding a majority of the party—can affect the chance of his being challenged from internal rivals. These two factors, however, do not necessarily affect the likelihood of replacement independently of each other. I expect that there is an important interaction between the two factors. Figure 6.2 summarizes the expected relationship between the party leader's characteristics and the chance of his being challenged from internal rivals. That is, although unpopular party leaders are likely to face challenges from internal rivals, some party leaders are able to cope with such challenges effectively due to the presence of a solid support base within the party.¹⁹ Therefore, the effects of external popularity on the party leader faction's portfolio share should be moderate when the party leader's faction has a strong bargaining power within the party.²⁰ This line of argument implies that an internally weak party leader responds sensitively to the changes in his external popularity in allocating portfolios because he is easily challenged from internal rivals unless he is popular among voters; on the other hand, an internally strong party leader does not respond to the changes in his external popularity as much because his rivals cannot easily assemble a majority to replace the incumbent party leader even

incumbent leaders (see Campbell 1977; Iseri 1988).

¹⁹Indeed, taking into account their low external popularity, internally strong LDP leaders such as Sato, Takeshita, and Obuchi managed to survive longer periods than internally weak leaders such as Miki and Uno did.

²⁰Since the interactive relationship between the two factors is symmetric, my theory also suggests that while internally weak party leaders are likely to face challenges from internal rivals, some party leaders do not face serious challenges due to their massive popularity with the broader public (for example, Nakasone—an internally weak party leader of the LDP in the 1980s—successfully prevented challenges from his rivals for a long time by maintaining a great external popularity). Therefore, the effects of internal strength on the party leader faction's portfolio share should be moderate when the party leader is popular among voters. Although I do not formulate a hypothesis from this perspective, I also present its empirical results to fully test my theory.

Figure 6.2: Likelihood the Party Leader will Face Challenges from Internal Rivals

		Party leader faction's internal strength	
		Weak	Strong
Party leader's external popularity	Popular	<i>Unlikely</i>	<i>Unlikely</i>
	Unpopular	<i>Likely</i>	<i>Unlikely</i>

if he is unpopular among voters. This reasoning generates the following hypothesis:

Hypothesis 2: When the party leader leads an internally weak faction, his external popularity determines his faction's portfolio share: (1) if the party leader is externally popular, his faction takes more portfolios than its seat share, but (2) if the party leader is externally unpopular, his faction takes fewer portfolios than its seat share. When the party leader leads an internally strong faction, on the other hand, his faction takes more portfolios than its seat share regardless of his external popularity.

6.4 Data and Measures

In order to test the hypotheses, I assembled data on all portfolio allocations in every LDP government between 1964 and 2007. The party leader of the LDP frequently reshuffled the cabinet in this period and replaced many cabinet members almost every year. The dataset includes those reshuffled cabinets as well as original ones but excludes cabinets in which the LDP did not hold the premiership.²¹ This leaves 18 party leaders and 55 cabinets in the dataset. I collected the factional affiliation information of the LDP members by using the directory of the Diet members in *Kokkai Binran*, which has been issued at least twice a year since 1954.

²¹The LDP briefly lost the premiership from 1993 through 1996.

Dependent Variable

The dependent variable is *Portfolio share*—the share of cabinet portfolios allocated to the party leader’s faction. In calculating the number of cabinet portfolios, I include party executive positions, such as Vice Party President (*Fukusosai*), Chief Secretary (*Kanjicho*), Chief Executive Council (*Somu kaicho*), and Policy Affairs Chief (*Seicho kaicho*), because these positions have been considered to be equivalent to or more important than cabinet ministers (Sato and Matsuzaki 1986, 51).²² In calculating the share of cabinet portfolios, I exclude the positions that are given to non-parliamentary members, the upper house members, and independents—party members with no factional affiliation—because the dynamic of allocation for these members is slightly different.²³ Indeed, the upper house members are not as equally represented in the cabinet as the lower house members are.²⁴ The existing literature has also excluded these members from the analysis (Ishikawa 1984; Kawato 1996). Thus, I focus only on the positions given to the lower house members who affiliate with any one of the factions.

There may be some concerns about treating every cabinet portfolio equally in the dependent variable, because it may not accurately reflect the power allocated by a party leader. For instance, some cabinet positions may be more important than others. Indeed, the result of an expert survey conducted by Kato and Laver (1998) indicates that such positions as Finance Minister and Foreign Affairs Minister are given relatively higher salience scores compared to other positions in Japan.²⁵

²²The LDP’s leader distributes party executive positions and cabinet minister positions at the same time. I exclude junior minister positions (*Seimujikan* and *Fukudaijin*) from the analysis, because I believe that they are allocated under different mechanisms. Indeed, these junior minister positions have typically been assigned to relatively young members, who have just started their careers (Sato and Matsuzaki 1986). Thies (2001) also argues that junior ministers are appointed from different factions than the corresponding ministers in order to let them monitor each other.

²³The number of LDP members who do not affiliate with any factions is very small. It varies across time, but it is usually about five percent of LDP members.

²⁴Almost all cabinet ministers are chosen from among the lower house members. In addition, the upper house members of the LDP have different incentives from the lower house members about factional affiliation (see Cox, Rosenbluth and Thies 2000).

²⁵Adachi and Watanabe (2008) also calculate relative salience scores of cabinet posts in Japan

Accordingly, ignoring the relative importance of cabinet positions may be problematic in assessing the faction's share of power that the party leader and factions truly care about. In order to accurately measure the bargaining payoffs, I employ the following two weighted measures as well as one measure without any weights.²⁶

The two weighted measures are constructed from seniority of LDP members appointed to cabinet positions between 1964 and 2007. Seniority—the degree to which the members have experience in national politics—is measured by the number of terms that they have previously served as Diet members.²⁷ Most cabinet officials in the LDP government are chosen from among party members who have a seat in the Diet. Moreover, seniority determines the career advancement of LDP members (Sato and Matsuzaki 1986; Epstein et al. 1997). Among LDP members, more experienced senior members tend to be assigned to more important positions in the government as well as in the party. They are usually appointed to a cabinet position in their sixth term or later (Sato and Matsuzaki 1986; Curtis 1988). Until they become a senior member, they normally serve as a junior minister in the government or as a committee chair in the Diet (Epstein et al. 1997). Similar kinds of seniority rule actually exist in many parliamentary democracies. For instance, in Western European countries, cabinet ministers are often chosen from among senior members in the parliament.

According to De Winter (1991), the average length of their previous experience as a

using a formal structural model as well as the data drawn from allocation results between 1958 and 1993. They show that cabinet positions that influence pork-barrel projects such as Construction Minister and Transport Minister are more significant than Foreign Affairs Minister.

²⁶I do not use survey-based weights of cabinet portfolios because an expert survey provides only an estimated salience of each portfolio when the survey was conducted. Also, the salience scores by Kato and Laver (1998) do not comprehensively cover all cabinet positions.

²⁷Some cabinet members are chosen from among upper house members. Also, some members have served not only as lower house members but also as upper house members previously. For instance, the former Prime Minister Kiichi Miyazawa switched from the upper house to the lower house after he had served two terms as an upper house member. Since upper house members serve longer years (they serve for six years and the term length is fixed) than lower house members (they serve up to four years, but they normally serve only for three years due to early dissolutions before the term expires), following the procedure taken by Sato and Matsuzaki (1986, 38), I treat one-term experience in the upper house as equivalent to two-term experience in the lower house in calculating seniority.

member of parliament is about nine years. Hence, I believe it is reasonable to assume that the seniority of members who serve as cabinet ministers reflects the importance of cabinet portfolios.

I construct the weighted share of portfolios by using the seniority information in two distinct ways: (1) salience scores and (2) relative seniority. The first measure attaches a salience score, which is drawn from the average seniority among members who have been assigned to the position between 1964 and 2007, to each cabinet portfolio. Since the Central Government Reform in 2001 changed cabinet portfolios greatly in Japan by reorganizing cabinet-level ministries and agencies, I produce salience scores before and after the reform separately.²⁸ In this measure, the salience score of an average portfolio has been normalized to one. The salience score is above one for a more important position and below one for a less important position. For instance, before the reform, the average seniority among successive finance ministers is 9.21; whereas, the average seniority among all cabinet portfolios is 7.65. As a result, the Finance Minister's salience score is calculated as 1.20, which suggests that the Finance Minister is 1.2 times as important as the average portfolio. Table 6.1 summarizes the average seniority, standard deviation, and salience score for each portfolio. The resulting salience scores are actually highly correlated with the ones based on an expert survey conducted by Kato and Laver (1998).²⁹ This high correlation outcome suggests that my objective measure of salience closely reflects the subjective perception among country experts. The weighted share as a dependent variable is produced by assigning the salience score in Table 6.1 in calculating the number of portfolios.³⁰

The second measure creates the weighted portfolio share by calculating the relative seniority of members appointed from individual factions in each cabinet. In contrast

²⁸Several influential ministries such as the Construction Ministry and the Transportation Ministry were merged under the Central Government Reform.

²⁹The correlation coefficient between the two measures is 0.91. Keep in mind, however, salience scores based on their expert survey do not cover all the positions in Table 6.1.

³⁰Different from political parties, LDP factions are not necessarily seeking to control over particular jurisdictions in the government; they generally put the same value on the same cabinet portfolio.

Table 6.1: Relative Importance of Cabinet and Party Executive Positions

Cabinet Positions	Before the Reform in 2001			After the Reform in 2001		
	Average terms	Standard deviations	Saliency scores	Average terms	Standard deviations	Saliency scores
Prime Minister (Party Leader)	10.75	2.75	1.41	9.86	2.27	1.42
Finance	9.21	2.46	1.20	10.00	3.06	1.44
Foreign Affairs	8.42	2.62	1.10	8.00	3.32	1.15
Administrative Management	8.15	2.99	1.07	-	-	-
Trade and Industry	8.11	2.23	1.06	-	-	-
Economy, Trade and Industry	-	-	-	7.14	0.69	1.03
Justice	7.58	2.68	0.99	6.71	0.95	0.97
Construction	7.44	1.74	0.97	-	-	-
Land, Infrastructure and Transportation	-	-	-	7.14	1.86	1.03
Cabinet Secretariat	7.41	2.15	0.97	-	-	-
Chief Cabinet Secretary	-	-	-	4.57	0.79	0.66
Agriculture, Forestry and Fisheries	7.39	2.15	0.97	6.57	1.27	0.94
Internal Affairs (new)	7.33	2.97	0.96	-	-	-
National Land	7.29	2.24	0.95	-	-	-
Transportation	7.26	1.76	0.95	-	-	-
Hokkaido development	6.95	2.42	0.91	-	-	-
Labor	6.86	1.76	0.90	-	-	-
Health, Labor, and Welfare	-	-	-	7.71	0.76	1.11
Defense	6.80	1.82	0.89	6.00	1.83	0.86
Welfare	6.74	1.60	0.88	-	-	-
Economic planning	6.74	3.01	0.88	-	-	-
National Public Safety	6.73	1.92	0.88	6.14	1.07	0.88
Internal Affairs (old)	6.55	1.86	0.86	-	-	-
Environment	6.48	2.41	0.85	5.80	1.30	0.83
Education	6.48	2.33	0.85	-	-	-
Education, Science and Technology	-	-	-	5.80	1.48	0.83
Posts and Telecommunications	6.42	1.94	0.84	-	-	-
Internal Affairs and Communications	-	-	-	5.00	2.08	0.72
Financial revitalization	6.33	1.53	0.83	-	-	-
Science and Technology	6.33	1.64	0.83	-	-	-
Okinawa development	6.27	2.17	0.82	-	-	-
Management and Coordination	5.85	1.74	0.76	-	-	-
No Portfolio	-	-	-	5.21	2.37	0.75

LDP Executive Positions	Before the Reform in 2001			After the Reform in 2001		
	Average terms	Standard deviations	Saliency scores	Average terms	Standard deviations	Saliency scores
Vice party president	10.96	2.69	1.43	-	-	-
Chief secretary	9.16	1.76	1.20	7.43	2.51	1.07
Executive council chief	9.11	2.13	1.19	8.57	0.79	1.23
Policy research council chief	8.39	1.90	1.10	7.57	0.98	1.09

Table 6.2: The Number of Portfolios Allocated to Factions (by Seniority)

Ohira I (December, 1978)

Seniority	Party leader's faction		LDP factions	
	Number	Weighted	Number	Weighted
3			1	3
4			1	4
5	1	5	4	20
6	2	12	4	24
7	2	14	2	14
8			1	8
9			3	27
10	1	10	3	30
11			1	11
12			3	36
Total	6	41	23	177

to the first measurement that assumes the relative importance of a cabinet position is uniform across cabinets, the second measure directly applies the seniority of members appointed in each cabinet as a weight, assuming that the relative importance may vary across cabinets over time. Table 6.2 presents an example drawn from the portfolio allocation made by a party leader, Masayoshi Ohira, in 1978. The table shows the number of portfolios assigned to all LDP factions and to the party leader's faction for each category of seniority. In this example, the party leader's faction sends six members to the cabinet. Their seniority is 41 in total. Since the total seniority of all members in this cabinet is 177, the party leader faction's weighted portfolio share is given as 23%. I calculate the weighted portfolio share in the same manner for each cabinet.

Explanatory Variables

The first explanatory variable is *Party fragmentation*, which is described by the number of factions. A party leader is able to enjoy some advantage when the party is highly fragmented because internal rivals have to overcome the problem of collective

action in assembling a majority coalition.³¹ Therefore, the degree of fragmentation within the party affects its competitive environment. Since each faction is not an equally powerful actor and the size of a faction affects its leverage, I adopt the effective number of factions that takes each faction's size into account (see Laakso and Taagepera 1979) as a measure of the degree of fragmentation in the party. The effective number of factions is calculated as follows: $\frac{1}{\sum p_i^2}$ where p_i is the seat share of the i th faction within the party.

The second explanatory variable is *External popularity*, which describes the party leader's external popularity among the broader public. The external popularity is measured by the results of public opinion polls conducted at the time when the portfolio allocation was made (Jijitsushinsha 1981; Jijitsushinsha and Chuochosasha 1992). The party leader's popularity among voters sometimes drops, but it does not immediately lead to the replacement of the incumbent leader. It is when an unpopular party leader devalues the party's brand name that the chance of being replaced rises. That is, the party leader becomes more likely to face challenges from internal rivals when his approval rating falls below the party's approval rating (see Burden 2005).³² In order to measure the extent to which the party leader is popular relative to the party, I take the difference between the party leader's approval rating and the party's approval rating.

The third explanatory variable is *Internal strength*, which describes how much of an advantage the party leader's faction has in assembling a majority coalition within the party. The best known measures of bargaining power in the tradition of cooperative game theory are the Shapley-Shubik index (Shapley and Shubik 1954) and the Banzhaf index (Banzhaf 1968), which describe the relative importance of

³¹The party leader is able to adopt a "divide-and-conquer" strategy in allocating portfolios to prevent his rivals from uniting to fight against him.

³²Kam and Indridason (2005) also demonstrate that, in such countries as Australia, Canada, Ireland, New Zealand, and the United Kingdom, prime ministers reshuffle their cabinets when their popularity among voters becomes lower than the party's or coalition's popularity.

individual factions in building majority winning coalitions.³³ In this chapter, I use the Shapley-Shubik index to measure the party leader faction's internal strength.³⁴ This power index lies in the range of zero to one, and its value gets closer to one as a faction becomes more critical in winning a majority in the party. In other words, the party leader faction's internal strength increases as its power-index score takes a higher value.³⁵ The power-index scores are calculated based on the number of faction members who have seats in the Diet as they are the main actors in selecting a leader of the LDP.

Control Variable

The size of the party leader's faction tends to decrease as the number of factions increases. In order to control the effect of the party leader faction's size, I employ *Seat share*—the seat share of the party leader's faction—as a control variable. In calculating the seat share, I employ the number of seats that the party holds in the lower house of the Diet as a denominator.³⁶ The seat share has been a main explanatory variable in the existing literature on portfolio allocation because seats are important resources for factions to make decisions within the party. I expect that increasing the party leader faction's seat share increases its portfolio share.

³³The power-index measures assume that any *majority winning coalitions* are equally likely to be formed. The minimum-integer voting weights used by Ansolabehere et al. (2005) instead count the number of *minimum winning coalitions* because parties are more likely to form such coalitions. However, the share of voting weights is not discernible from the share of seats when there are many parties. Since the LDP had fourteen factions once at a maximum, I do not employ the voting weights here. Indeed, the correlation coefficient between seat shares and voting weight shares among LDP factions is very high.

³⁴The Shapley-Shubik index and the Banzhaf index have certain similarities, but they sometimes provide different outcomes about the evaluation of bargaining power. A major difference between these two indices is that the Shapley-Shubik index takes into account of the order in which parties join a coalition, while the Banzhaf index does not. This difference implies that the former index models the dynamics of communication process between parties, but the latter index implicitly assumes that parties assemble a winning coalition without considerable communications between them (Straffin 1977, 1988). While the two power indices sometimes provide different outcomes about the evaluation of bargaining power, I obtained substantively the same results in both measures.

³⁵Again, I normalize this variable by setting zero as the minimum value of the samples to present the coefficients in the regression table in a meaningful manner.

³⁶The independent members have been excluded in calculating the total number of seats.

6.5 Analysis and Findings

The following equation is used for the empirical analysis. In order to capture the conditional feature of the hypothesis about the party leader's characteristics, I introduce an interaction term between the party leader's external popularity and his internal strength. Since the dependent variable is a proportion (the portfolio share given to the party leader's faction) and ordinary least squares (OLS) may not produce accurate estimates, I employ beta maximum likelihood estimation to obtain the coefficients and standard errors (see Paolino 2001).³⁷

$$\begin{aligned} \text{Party leader's portfolio share} = & \beta_0 + \beta_F \text{Party fragmentation} + \beta_E \text{External popularity} \\ & + \beta_I \text{Internal strength} + \beta_{EI} \text{External popularity} \times \text{Internal strength} \\ & + \beta_S \text{Seat share} + \varepsilon \end{aligned}$$

Table 6.3 presents the results of nine models.³⁸ As a dependent variable, I employ three different measures of the party leader's portfolio share: one measure without weights and two measures with weights. There are three models for each type of dependent variable. The first model estimates only the effect of the competitive environment on the party leader's portfolio share. The second model estimates only

³⁷The dependent variable is the share of cabinet portfolios given to the prime minister's party. In this case, the OLS model may produce inaccurate estimates because some assumptions such as normality and homoskedasticity are violated. In addition, while the dependent variable is bounded by 0 and 1, the OLS estimation makes predictions beyond this range. The approach presented here employs beta maximum likelihood estimation (BMLE) that assumes the *beta distribution* in the data generation process. According to Paolino (2001), using the beta distribution is preferable in dealing with proportion data because this distribution is flexible in its shape (e.g., the distribution can be symmetrical or skewed) and also recognizes a relationship between the mean and the variation (e.g., the variance is smaller when the average proportion is near 0 or 1). These features help produce more precise estimates.

³⁸In Japan, the electoral reform in 1994 introduced a hybrid system of single-member districts and proportional representation by abolishing the single non-transferable vote system (SNTV). Some argue that party leaders have more control over party members after the electoral reform because they have more say on giving party endorsement (e.g., Takenaka 2006). In order to test whether there is any independent shift in the party leader faction's portfolio share after the reform, I incorporated a dummy variable that takes a value of one if the cabinet is formed after the reform and run a regression. However, I found no evidence to support this hypothesis.

the effect of the party leader's characteristics on his portfolio share. The third model incorporates both factors at once and fully estimates the equation. In order to conduct the hypothesis testing, I employ robust standard errors, where individual party leaders are the clusters.³⁹

The first message from the results in Table 6.3 is that the seat share does not fully explain the share of cabinet portfolios that goes to the party leader's faction. The findings suggest that the party leader faction's portfolio share increases with its seat share. However, unlike the prediction made by Gamson's Law, the party leader faction's portfolio share does not appear to be proportional to its seat share. The coefficient estimate of *seat share* (β_S) shows that a 10-percentage point increase in the seat share leads to only about a 5-percentage point increase in the portfolio share. This difference implies that, in addition to the faction's seat share, there are other factors that explain portfolio allocations within the LDP.

The second message drawn from the results in Table 6.3 is that the fragmentation of the party increases the party leader faction's portfolio share even when we control the size of a faction. The coefficient estimate of *party fragmentation* (β_F) is positive and statistically significant. This result suggests that the party leader gives more portfolios to his faction when the party is fragmented into many factions. The difference between the party leader faction's portfolio share when the number of factions is maximum and when it is minimum is about 10 percentage points, which implies that high party fragmentation provides the party leader's faction with up to two additional portfolios.⁴⁰ This effect is substantially large enough to conclude that the evidence provides support for Hypothesis 1. This result suggests that party leaders can be a powerful actor where their party's members are not organizing themselves

³⁹The Durbin-Watson d test did not detect the clear existence of serial correlation in the error term at the 5% level, but d static falls under the zone of indecision. In order to test the robustness of my results, I also estimated with a Prais-Winsten regression and obtained similar results.

⁴⁰Note that the size of the party leader's faction is held constant.

Table 6.3: Effects of Party Fragmentation, External Popularity, and Internal Strength on Party Leader Faction's Portfolio Share

Variable	Dependent variable: Party leader faction's portfolio share									
	No Weights		Weighted by Salience Score				Weighted by Relative Seniority			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	
<i>Party fragmentation</i>	0.218 (0.039)***	-	0.190 (0.066)***	0.184 (0.039)***	-	0.156 (0.058)***	0.142 (0.035)***	-	0.128 (0.063)**	
<i>External popularity</i>	-	2.514 (0.744)***	2.090 (0.637)***	-	2.541 (0.656)***	2.193 (0.557)***	-	2.478 (0.528)***	2.205 (0.470)***	
<i>Internal strength</i>	-	5.105 (1.494)***	2.747 (1.212)**	-	4.755 (1.107)***	2.818 (0.981)***	-	4.102 (0.862)***	2.524 (0.896)***	
<i>External popularity</i> × <i>Internal strength</i>	-	-12.386 (4.780)***	-7.978 (4.173)*	-	-11.152 (3.920)***	-7.527 (3.305)**	-	-11.993 (3.332)***	-9.138 (3.259)***	
<i>Seat share</i>	3.483 (1.230)***	0.921 (1.630)	2.569 (1.355)*	3.911 (1.160)***	1.475 (1.374)	2.828 (1.126)**	2.807 (0.957)***	1.274 (1.159)	2.374 (1.148)**	
<i>Constant</i>	-3.091 (0.380)***	-2.284 (0.400)***	4.445 (0.207)***	-2.938 (0.379)***	4.389 (0.341)***	-3.228 (0.423)***	4.486 (0.309)***	-2.158 (0.306)***	4.787 (0.233)***	
N	49	49	49	49	49	49	49	49	49	
Log pseudo-likelihood	76.64	75.55	82.68	77.64	80.65	86.63	82.65	85.26	90.01	

Robust standard errors (clustered by individual party leaders) in parentheses
 * significant at 10%; ** significant at 5%; *** significant at 1% (two-tailed)

if everything else is held constant.⁴¹

The third message drawn from Table 6.3 is about the effect of the party leader's characteristics on his faction's portfolio share. The interpretation of the two coefficients describing the party leader's characteristics is not simple because there is an interaction between them. Since the effect of one factor is mediated by the presence of the other factor, I first explain the effect of each factor on the party leader faction's portfolio share when the variable of the other factor is fixed at zero. Then, I elucidate how the interaction between the two factors affects the party leader faction's portfolio share.

The coefficient estimate of *external popularity* (β_E), shown in the second row in Table 6.3, describes the effect of external popularity on the party leader faction's portfolio share when its internal strength is zero (i.e., the smallest value in the sample). Hypothesis 2 predicts that this coefficient should be positive because the party leader's external popularity greatly increases his faction's portfolio share when the party leader's faction is internally weak. The results show that this coefficient is positive as predicted and statistically significant. Similarly, the coefficient estimate of *internal strength* (β_I), shown in the third row in Table 6.3, describes the effect of internal strength on the party leader faction's portfolio share when the party leader's external popularity is zero (i.e., the lowest value in the sample). My theory suggests that this coefficient should be positive as well because the party leader's internal strength increases his faction's portfolio share when the party leader is unpopular among voters. The results show that the coefficient is positive as predicted and

⁴¹The result on party fragmentation can partly explain the shift in the overall pattern of portfolio allocations within the LDP. The party was highly fragmented in the 1960s, and the degree of fragmentation decreased in the 1970s as some factions merged or disappeared. The existing literature points out that the proportional pattern in portfolio allocation emerged within the LDP in the 1970s. The evidence in Table 6.3 suggests that the shift in the allocation pattern occurred because the party was less fragmented. When the number of factions was relatively small, the party leader surrendered some portfolios to his rivals to prevent them from uniting against him. As a result, the proportional allocation appears to emerge in the overall pattern. The size of the LDP's legislative majority in the lower house also varied over time in this period, but I found no evidence to suggest that it has any impact on portfolio allocation within the party.

statistically significant.

These results support Hypothesis 2, but they are not sufficient to confirm this hypothesis because it further predicts that the effect of the party leader's external popularity should be *smaller* when the party leader's faction is internally strong. The coefficient of the interaction term (β_{EI}), shown in the fourth row in Table 6.3, captures how the party leader faction's internal strength modifies the effect of his external popularity on his faction's portfolio share. The results show that this coefficient is negative as expected and statistically significant. The negative coefficient suggests that the party leader's external popularity makes a significant difference to his faction's portfolio share when his faction is internally weak, but the effect of external popularity becomes less pronounced as the party leader has an internally stronger faction.

Figure 6.3 illustrates how the effect of *external popularity* on the party leader's portfolio share changes over the range of *internal strength*. The horizontal axis indicates the party leader faction's internal strength. The vertical axis displays the predicted portfolio share that goes to the party leader's faction. The black sloped lines demonstrate how the party leader faction's predicted portfolio share changes across the range of internal strength, while holding the value of external popularity at 1.5 standard deviations above the average (Line A) and at 1.5 standard deviations below the average (Line B). Line A indicates the party leader faction's predicted portfolio share when the party leader is *popular* among voters, whereas Line B describes the party leader faction's predicted portfolio share when the party leader is *unpopular* among voters. The two gray lines along each black line indicate the upper and lower bounds of the 90% confidence interval. In this figure, other variables, including the party leader faction's seat share, are held constant at their mean values. The gray shaded area displays the region where the predicted portfolio share is lower than the proportional share. The three figures correspond to the results of the three full

models (Model 3, Model 6, and Model 9) in Table 6.3, respectively.

The figure shows that when the party leader is popular among voters, his faction receives more portfolios than its seat share (i.e., Line A has a flat slope); however, the party leader's faction receives fewer portfolios when he is not popular *and* when his faction is internally weak (i.e., Line B has a positive slope). In other words, when the party leader's faction is internally weak, his external popularity makes a significant difference to his faction's portfolio share (i.e., the difference between Line A and Line B is large); whereas, when the party leader's faction is internally strong, his external popularity does not make any difference to his faction's portfolio share (i.e., the difference between Line A and Line B is small). These results demonstrate that Hypothesis 2 is strongly supported by the evidence, suggesting that the party leader changes the allocation of cabinet portfolios depending on the likelihood of being challenged from internal rivals. That is, the party leader surrenders more portfolios as he becomes more vulnerable.⁴²

I now turn to considering the substantive implications of these empirical results by using an actual example of power struggle within the LDP that will help illustrate this argument. Kakuei Tanaka and Takeo Fukuda are famous LDP politicians, who as powerful faction leaders were actively engaged in a power struggle within the party in the 1970s. Since the competition between these two political figures was so severe, it has become known as the *Kaku-Fuku War*. Tanaka became a party leader in 1972 by defeating his arch rival, Fukuda, in the party's presidential election. He first allocated portfolios in July 1972 and then reshuffled the cabinet entirely in November 1973. Table 6.4 summarizes portfolio allocation outcomes given to the factions led by Tanaka and Fukuda, respectively. Within this very short period, Tanaka's faction suffered a decrease in the share of cabinet portfolios, while his rival's

⁴²Figure 6.3 suggests that the party leader's internal strength does not make any significant difference to his faction's portfolio share when he is popular among voters. Hence, the results also support the symmetrical hypothesis drawn from my theory—the effect of internal strength is moderate when the party leader is externally popular.

Figure 6.3: Party Leader Faction's Predicted Portfolio Share

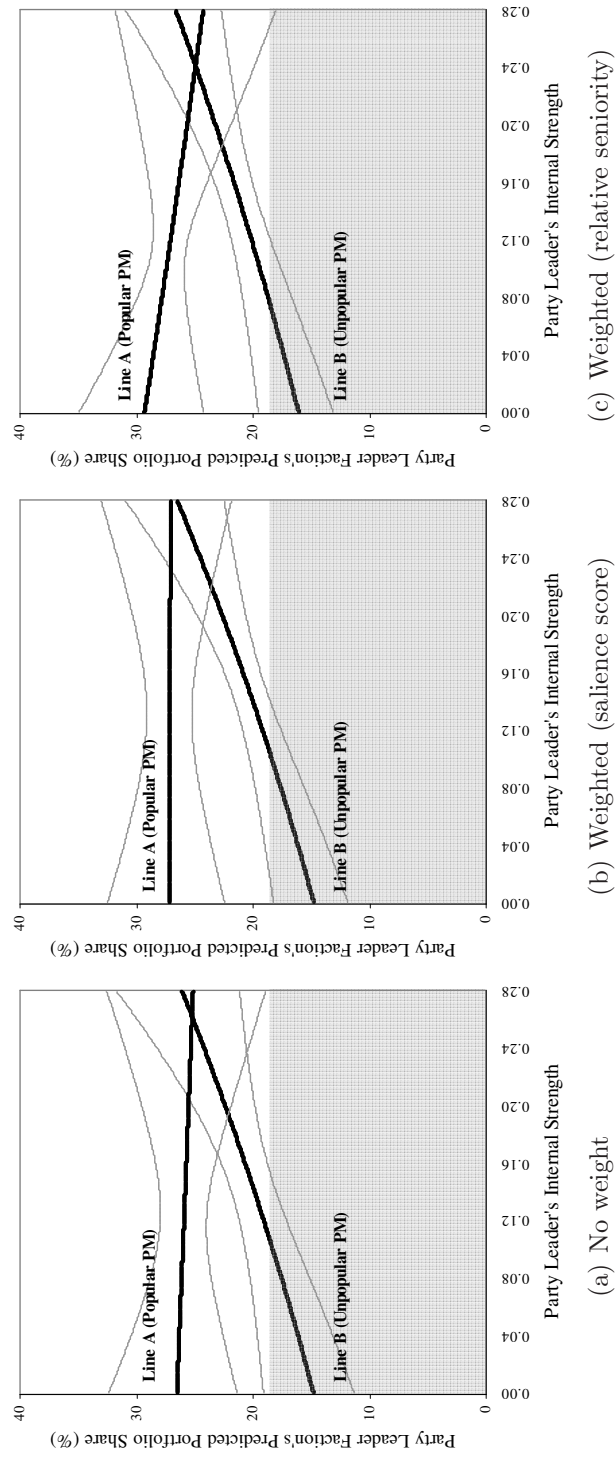


Table 6.4: An Example of Power Struggle within the LDP

July 1972

	Parliamentary seats		Cabinet positions	
	Number	Percentage	Number	Percentage
Tanaka's faction	42	14.8	6	28.6
Fukuda's faction (Tanaka's rival)	65	22.9	2	9.5

Tanaka's approval rating: 56%; LDP's approval rating: 32%

November 1973

	Parliamentary seats		Cabinet positions	
	Number	Percentage	Number	Percentage
Tanaka's faction	48	17.7	5	23.8
Fukuda's faction (Tanaka's rival)	56	20.6	3	14.3

Tanaka's approval rating: 18%; LDP's approval rating: 27%

The LDP had seven factions other than these two factions in this period.

faction—Fukuda's faction—enjoyed an increase, despite the fact that Fukuda's faction had actually reduced its seat share.

The empirical results suggest that a sharp drop in Tanaka's external popularity drove him to decrease his faction's portfolio share.⁴³ The opinion poll results show that Tanaka enjoyed a greater approval rating than the LDP in 1972, but his approval rating dropped significantly in 1973 due to rapid inflation as well as the oil crises caused by the Middle East War, which triggered the cabinet reshuffle (Kitaoka 1995).⁴⁴ Thanks to his faction's internal bargaining power, however, Tanaka gave up only one position in the reshuffled cabinet despite a large decline in his external popularity.⁴⁵ The internal strength of Tanaka's faction helped him secure a certain

⁴³There was almost no change in the number of factions in this period.

⁴⁴The opinion poll results show that Tanaka's approval rating and the LDP's approval rating in July 1972 were 56% and 33%, respectively. However, these approval ratings dropped to 18% and 27% respectively in November 1973. In other words, Tanaka's contribution to the LDP was a surplus by 23-percentage points in 1972, but his contribution turned into a significant deficit by 9-percentage points in 1973.

⁴⁵The regression result (Model 3) shows that, under this condition, the marginal effect of Tanaka's popularity on his faction's portfolio share is 0.152, which is statistically significant at the 5% level. This result implies that Tanaka's faction should have reduced its portfolio share by 4.44 percentage

number of portfolios for his faction members even when he was unpopular among voters.

Now, let us think of two hypothetical scenarios. First, if Tanaka's faction was in a less advantageous position in winning a majority in the party, how much would his faction have lost in portfolio allocation when Tanaka reshuffled the cabinet in 1973? My results suggest that one standard deviation below the internal strength measure of Tanaka's faction would lead to a 7.92 percent drop in its portfolio share.⁴⁶ In another words, Tanaka's faction would have lost two positions in the reshuffled cabinet in 1973. Second, if Tanaka's faction was in a more advantageous position in winning a majority, on the other hand, would Tanaka's faction have lost any portfolios in the reshuffled cabinet? My result suggests that Tanaka's faction would not have faced any loss of portfolios if its internal strength was one standard deviation above what it was.⁴⁷ That is, Tanaka's faction would have received the same number of portfolios as it originally had in this case. These predicted results explain the variation in portfolio allocations observed within the LDP over time. The party leader's external popularity and his faction's internal strength affect the allocation of portfolios among factions in a very systematic way.

6.6 Robustness Tests

Before concluding this chapter, I provide further tests of my core argument by examining how party leaders deal with their significant internal rivals in portfolio allocations (i.e., changes in the portfolio shares given to these rival factions). In order to conduct empirical estimations, I redefine the dependent variable as the portfolio share given to the faction led by the most critical rival of the party leader. I assume

points. This is very close to the actual result—4.76 percentage points.

⁴⁶The marginal effect of Tanaka's external popularity on his faction's portfolio share in this case is 0.23, which is statistically significant at the 1% level.

⁴⁷The marginal effect of Tanaka's external popularity in this case is not statistically significant.

that the most critical rival of a party leader is the one who leads the largest faction within the party (or the second largest faction if the party leader is leading the largest one) because large factions can exert more influence on the fate of the incumbent party leaders than small factions. A new independent variable is the rival faction's seat share. Other independent variables are those in Table 6.3: party fragmentation, the party leader's external popularity, and his faction's internal strength. The logic of my theory implies that the estimation of the "strong challenger" factions would differ markedly from that of the party leader's factions; that is, these challenger factions should receive *more* portfolios as the party leader becomes more vulnerable.

The results shown in Table 6.5 support this hypothesis, suggesting that cabinet portfolios surrendered by the party leader go to the rival factions. First, while the party leader's faction receives more portfolios as the party becomes more fragmented, the effect of party fragmentation on the portfolio share is opposite for rival factions. The coefficient of party fragmentation is negative and statistically significant. That is, the most critical rival's faction receives *fewer* portfolios as the degree of party fragmentation increases, holding everything else constant. This result is derived from the fact that rival factions cannot easily reach agreement to depose the incumbent party leader (because the party leader can play one against another) when there are many factions.

Second, the party leader's characteristics also determine the rival faction's portfolio share. The coefficient estimates of *external popularity* (β_E) and *internal strength* (β_I) are negative, as predicted, and statistically significant. In addition, the interaction term has a positive coefficient. These results suggest that the party leader's characteristics affect the rival faction's portfolio share in the opposite direction.

Figure 6.4 illustrates how the party leader's external popularity affects his rival faction's portfolio share over the range of internal strength. The format of this figure is the same as Figure 6.3 except that the vertical axis displays the predicted portfolio

Table 6.5: Effects of Party Fragmentation, External Popularity, and Internal Strength on Rival Faction's Portfolio Share

Variable	Dependent variable: Rival faction's portfolio share									
	No Weights		Weighted by Salience Score			Weighted by Relative Seniority				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	
<i>Party fragmentation</i>	-0.466 (0.155)***	-	-0.359 (0.095)***	-0.441 (0.183)**	-	-0.336 (0.106)***	-0.466 (0.202)**	-	-0.341 (0.113)***	
<i>External popularity</i>	-	-4.945 (1.652)***	-4.059 (1.211)***	-	-5.028 (1.802)***	-4.260 (1.370)***	-	-5.259 (2.213)**	-4.430 (1.711)***	
<i>Internal strength</i>	-	-5.385 (2.135)**	-4.233 (1.654)**	-	-5.153 (2.330)**	-4.123 (1.859)**	-	-5.326 (2.381)**	-4.263 (1.919)**	
<i>External popularity</i> × <i>Internal strength</i>	-	26.482 (11.107)**	20.571 (8.711)**	-	23.294 (12.158)*	18.038 (9.726)*	-	26.261 (13.186)**	20.769 (10.854)*	
<i>Seat share (Rival's faction)</i>	-1.946 (4.324)	7.971 (1.745)***	0.985 (2.812)	-0.555 (4.991)	9.103 (2.205)***	2.652 (3.237)	-1.540 (2.276)	8.703 (2.158)***	2.215 (3.228)	
<i>Constant</i>	1.651 (0.237)	-2117 (0.632)***	1.249 (1.173)	1.192 (2.020)	-2.311 (0.713)***	0.832 (1.333)	1.509 (2.276)	-2.268 (0.744)***	0.916 (1.384)	
N	49	49	49	49	49	49	49	49	49	
Log pseudo-likelihood	66.78	68.40	73.00	61.03	65.18	68.59	63.47	67.22	70.88	

Robust standard errors (clustered by individual party leaders) in parentheses
 * significant at 10%; ** significant at 5%; *** significant at 1% (two-tailed)

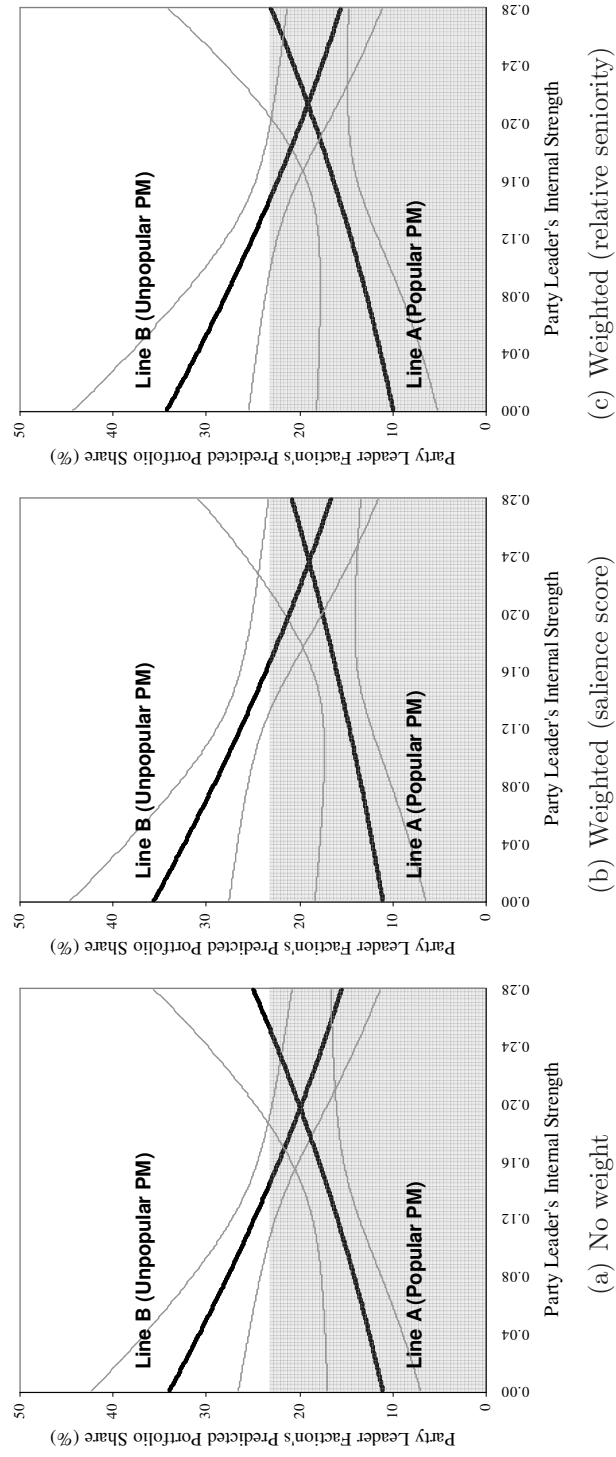
share that goes to the most critical rival's faction. The horizontal axis indicates the party leader's internal strength. Line A indicates the rival faction's predicted portfolio share when the party leader is *popular* among voters, whereas Line B describes the rival faction's predicted portfolio share when the party leader is *unpopular* among voters.

Figure 6.4 shows that when the party leader is popular among voters, his rival's faction receives fewer portfolios than its seat share; however, the rival's faction takes more portfolios than its seat share when the party leader is unpopular *and* when his faction's internal strength is weak. To put it differently, when the party leader's faction is internally weak, his rival's faction receives more portfolios as the party leader loses popularity among voters; whereas when the party leader's faction is internally strong, his external popularity does not make any difference to his rival faction's portfolio share. These results suggest that the fear of his being replaced motivates the party leader to change the portfolio share given to his rival's faction. Therefore, the party leader gives more portfolios to his rival's faction as he becomes more likely to be challenged from internal rivals. These results support the logic of my theory that, by allocating cabinet portfolios, the party leader secures the cooperation from his party's members and fends off challenges posed by internal rivals.

6.7 Conclusion

By examining portfolio allocation outcomes among LDP factions, this chapter found that a party leader's faction does not always receive a proportional share of portfolios relative to its seat share. In fact, considerable variation exists in allocation outcomes within the LDP, suggesting that knowing a faction's seat share is insufficient for understanding the pattern of portfolio allocation. Existing empirical studies of portfolio allocation emphasize the overall trend of the proportional relationship between portfolio shares and seat shares, yet they do not explain why at some times

Figure 6.4: Rival Faction's Predicted Portfolio Share



party leaders allocate more portfolios to their own factions while at other times they do not.

The theoretical framework presented in this chapter views portfolio allocation among factions as the result of a strategic choice made by a party leader, who is concerned about challenges from internal rivals. A party leader promotes coordination among party members to assure their commitment and to maintain voting unity in the parliament. However, he is not always able to punish defectors effectively because party members may replace the incumbent leader so as to strike a more advantageous bargain. In the LDP of Japan, party members indeed strengthen their bargaining power by acting together as a group within the party and often attempt to replace the incumbent leader. I argue that portfolio allocation is an important instrument for a party leader to control such party members. To prevent his rivals from usurping his power, a party leader allocates cabinet portfolios among them strategically. Hence, the leader changes the allocation among factions depending on the likelihood of being challenged by internal rivals. A common result is that the party leader's faction receives fewer portfolios as the risk of internal threats increases.

The empirical work demonstrates that my theoretical framework better explains variations in portfolio allocation from cabinet to cabinet than do previous theories. To test my argument, I employ original data on portfolio allocations in LDP cabinets between 1964 and 2007 that incorporate the party leader's characteristics as well as the competitive environment within the party. The empirical findings suggest that, unlike the existing literature on portfolio allocation, cabinet portfolios are not simply allocated among factions depending on their seat shares within the party; in fact, the party leader's faction surrenders more portfolios as he becomes more vulnerable to challenges posed by internal rivals. The results support the idea that party leaders use their authority to allocate portfolios to prevent defections and challenges from internal rivals.

The findings of this chapter provide valuable insights for our understanding of the bargaining dynamics in parliamentary democracies. Party leaders have to deal with their party's members and factions with different interests. This chapter proposed a theoretical framework that explains portfolio allocation within a party as an important means for party leaders to overcome such internal divisions in the process of managing the party. The empirical results here suggest that the risk of internal threats affects how much power the party leader can exercise to manage the party. The resulting portfolio allocation clearly reflects the bargaining dynamics within the party.

While factors that influence prime ministers' strength may be more or less different across parties, I expect that this study's theoretical framework will inform understandings of portfolio allocation within other parties. For instance, Margaret Thatcher, the British Prime Minister between 1979 and 1990, changed the allocation of cabinet portfolios within the Conservative Party depending on the strength of her leadership (see Norton 1990; Kam and Indridason 2005; Indridason and Kam 2008). Consistent with the logic of this study, while Thatcher surrendered cabinet portfolios to her rival groups in her first term, she weeded out these disloyal members from the cabinet as she became less vulnerable within the party in order to provide her supporters with more important portfolios. Future studies could investigate the extent to which my theoretical framework applies to portfolio allocation within parties in which factions and internal divisions are more informal and unorganized.

CHAPTER VII

Conclusion

7.1 Introduction

In parliamentary democracies, cabinet ministers hold very important positions because they make policies and oversee the implementation of policy on behalf of the government. Therefore, the allocation of cabinet portfolios is a process of the utmost importance—for the parties themselves and for society as a whole—to determine which societal interests will be represented in the actions of government. This dissertation shed new light on the way cabinet portfolios are allocated among political parties as well as among party factions to reveal mechanisms underlying portfolio allocation in democracies thus organized. In this chapter, I first summarize the important findings and implications of this dissertation, and then conclude with some questions for future research.

7.2 Findings and Implications

The existing studies of portfolio allocation have focused on the process of coalition formation, by treating cabinet portfolios as the reward for joining a coalition, to understand allocation outcomes. In particular, they expect cabinet portfolios to be allocated among parties in the coalition as a function of the parliamentary seat shares

that they contribute to the coalition. However, I find a very different pattern exists in portfolio allocation between prime ministerial parties and junior coalition parties. In most coalition governments in Western European countries, prime ministerial parties receive fewer portfolios than they should under prevailing theories. Moreover, their allocation results vary considerably across countries as well as over time within countries; sometimes prime ministerial parties receive far fewer portfolios than their seat shares while at other times they do not. These patterns indicate cabinet portfolios are not merely prizes for coalition formation in the parliament.

This dissertation brings new perspectives to the study of portfolio allocation by drawing particular attention to the role of the prime minister in the process of managing a coalition government. To understand the mechanisms at work in portfolio allocation, I developed a theoretical framework that accounts for portfolio allocation as the result of a strategic choice made by a prime minister concerned about the quality of governance. The formation of a coalition government is not the sole purpose for political parties. Even after they build a coalition, they still have to work together in order to take advantage of government authority and to further their own policy goals. However, coalition parties may not work cooperatively with each other because they want to pull government policies toward their positions so as to avoid being punished by their supporters. As a result, they may not be able to attain legislative voting unity, which is necessary to pass government bills in the parliament. I contend that the prime minister plays a central role in managing the coalition government, particularly in forging consensus among coalition parties, because the government will face deadlock and cannot accomplish much when they fail to reach agreement. Accordingly, the prime minister of a coalition government often surrenders more cabinet portfolios than necessary merely to form a coalition.

My theoretical framework explains not only why the prime minister's party accepts fewer portfolios than its proportional share but also how much of a loss the prime

minister has to accept in allocating cabinet portfolios. The characteristics of coalition parties are different and so is the government's performance. The composition of coalition government affects the quality of governance and even policy outcomes (see Franzese 2002; Bawn and Rosenbluth 2006). The cost that the prime minister incurs in order to maintain legislative voting unity will be greater when coalition parties have more diverse policy preferences. In order to reduce the cost of coalition management, the prime minister surrenders portfolios to coalition partners. Therefore, portfolio allocation outcomes vary depending on the coalition's prospective quality of governance as well as each party's bargaining power in forming a winning coalition in the parliament.

To test my argument, I drew on a dataset that included coalition governments in thirteen Western European countries between 1945 and 2000. The empirical findings suggest that, consistent with my argument, the prime minister's party changes its portfolio share depending on (1) its bargaining power in assembling a winning coalition in the parliament and (2) the degree of policy divergence among coalition parties. Moreover, the effect of one factor is mediated by the presence of the other factor. That is, when the bargaining power of the prime minister's party is weak, the policy divergence factor does not appear to affect its portfolio share because the prime minister has to surrender portfolios regardless of the cost of coalition governance. When the bargaining power of the prime minister's party is strong, on the other hand, the policy divergence factor affects its portfolio share significantly because the prime minister surrenders portfolios only when coalition parties have divergent policy goals under this condition. Accordingly, the cost of coalition governance decreases the prime ministerial party's portfolio share more markedly the greater the strength of its bargaining power in forming a coalition. The empirical findings also suggest that, when coalition member parties have similar policy goals, the bargaining power of the prime minister's party affects its portfolio share; however, when coalition

member parties have divergent policy preferences, the bargaining power of the prime minister's party does not affect its portfolio share because the prime minister surrenders portfolios even when his/her party has a strong bargaining power in building a winning coalition in the parliament. The results support my argument that the prime minister's party surrenders cabinet portfolios to coalition partners to accommodate both coalition formation and coalition governance.

I have examined portfolio allocation among parties in coalition governments, but bargaining over cabinet portfolios also takes place *within* parties because many parties have internal divisions or factions that influence these decisions. Therefore, I further extended my theoretical framework to explain portfolio allocation among party factions and examined the allocation outcomes over time within the Liberal Democratic Party (LDP) of Japan. The long-dominant LDP is an excellent case for analyzing portfolio allocation within a party because highly institutionalized factions have existed in the party for over a long period of time. In parties that have relatively loosely organized groups or factions, we can only vaguely examine the allocation mechanisms. However, the LDP allows us to investigate the systematic variation in the allocation outcomes. In addition, the LDP's long tenure in power enables us to control for party status in the government. The empirical findings suggest that substantial variance exists in allocation outcomes over time in the LDP because, similarly to prime ministers in coalition governments, party leaders also allocate portfolios among factions strategically to prevent defections and challenges from internal rivals. The resulting portfolio allocation reflects the bargaining outcomes within the party, which will affect the extent to which party members are willing to behave in a disciplined manner in the parliament.

7.3 Directions for Future Research

The findings of this dissertation are important because they incorporate an important perspective on coalition politics that has attracted inadequate attention in the existing literature on portfolio allocation. The considerable variation in allocation outcomes over time and across countries reflects the bargaining dynamics in coalition governments. I find that the composition of coalition parties as well as a party's bargaining position to command a parliamentary majority affect the allocation of cabinet portfolios. In particular, divergent policy preferences among coalition parties are negatively correlated with the portfolio share given to the prime minister's party, which plays an important role in managing the government. These findings highlight the importance of incorporating coalition characteristics and the different roles played by senior and junior parties in coalitions into analyses of portfolio allocation.

While this dissertation explored the cabinet-level effort to solve tensions between parties by focusing on the prime minister's role in the government, there are several issues that lie beyond the scope of this dissertation and remain unanswered. For instance, examining how these compromises made at the cabinet level affect policy-making in the legislature might help us understand the linkage between portfolio allocation and legislative process.

Another study might involve examining governance arrangements in parliamentary democracies. This dissertation has treated political parties as a unit of analyses to figure out mechanisms underlying portfolio allocations. These organizations could be viewed as "endogenous" institutions created by the choices of individual members in those organizations, because legislators have to bargain and exchange support in a legislature in order to attain their goals such as reelection, career advancement, and policy leverage (Weingast and Marshall 1988). For instance, a political party is a solution for such individual legislators, who otherwise would have incentives to renege, because the party leadership assures their commitment and solves the collective

dilemmas they face (Cox and McCubbins 1993; Aldrich 1995).

However, legislators do not always form a large single party in the parliament that internalizes the exchange mechanism of support. There is significant variation in modal governance arrangements across parliamentary democracies. For instance, in Japan, LDP members attempt to gain office by maintaining a large single party with multiple factions. On the other hand, in many Western European countries, members of parliament form relatively small parties and attempt to gain office by building a coalition with other parties even though it is costly to engage in coalition bargaining to attain a legislative majority. Why do these groups take different paths in pursuit of a parliamentary majority? Under what conditions do legislators internalize the exchange mechanism of support within a party to avoid coalition bargaining?

Since internalizing the exchange mechanism of support increases the management cost of the party, legislators face a trade-off between intra-party management cost and inter-party negotiation cost. Therefore, legislators have to decide whether to internalize or externalize the exchange mechanism of support, depending on the total costs they have to bear in pursuing their goals. To account for political parties, one future direction might be to integrate the impact of various institutions with an analysis of these transaction costs in exchanging support in the legislature by using the analogy of firms in transaction cost economics.

Similar holds true for party factions; party members also organize factions to increase their bargaining power in their parties so that they can attain their own goals better than other members. In other words, the origin of a faction can be found in a set of incentives among party members. If acting as a disciplined bloc is valuable within a parliament, it should also be valuable within a party because a political party is a fractal replication of a legislature as a decision-making organ (Bowler, Farrell and Katz 1999). However, party members do not always establish solid factions in their parties. To what extent is such behavior beneficial for party members? What

prevent party members from organizing solid factions within their parties? I expect such analyses to have the potential to produce new insights about why some parties have self-aware and organized factions while others do not, as well as to clarify how the presence or absence of factions affects the cost of party management.

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